VALLEY FARMER.

A Monthly Journal of Agriculture, Horticulture, Education and Domestic Economy, Adapted to the wants of the people of the Mississippi Valley.

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THE VALLEY FARMER.

E. K. Woodward, Ephraim Abbott.

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EPHRAIM ABBOTT, Editor.

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TERMS.

THE VALLEY FARMER is published on the first of each month, each number containing 48 large octavo pages (including 12 pages devoted to advertisements of matters of interest to farmers,) and is offered at the following rates:—

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Four copies, $3; seven copies, $5; Fifteen copies, $10.

☞Payments, in all cases, must be made in advance.—Remittances in gold coins, current bank notes, or postage stamps, may be made by mail at our risk.

AGENTS.—Postmasters and Merchants throughout the country are authorized to act as Agents, and every friend of the enterprise is respectfully requested to aid in extending its circulation.

ADVERTISING.—Advertisements are inserted in the ADVERTISING DEPARTMENT of the Valley Farmer at the following rates:—One insertion of 12 lines, $1; each additional insertion, 50 cents; 12 lines one year $6; each additional 12 lines one year, $4; one page, one insertion, $7; each additional insertion, $5; one page, yearly, $30; cards of six lines or less, one year, $4.

New Year.

The VALLEY FARMER, presents the compliments of the season to his numerous friends and patrons. Having put on a new dress, he is inclined to increase the circle of his acquaintance, and while he would by no means neglect to *call* on his old friends, he would gladly pay the same compliment to numerous new ones. He hopes that the new year will be one of prosperity, joy and happiness to all his friends; and that his intercourse with the farmers of the west will be characterized by the same good feeling and cordiality as has hitherto been the case; and that the good cause of agricultural improvement will this year make rapid strides. To those of his friends who have already contributed a portion of the *pabulum* necessary to maintain his vigor and usefulness he tends his most hearty thanks; while he is prepared to express the same feeling towards all others who are exerting themselves for the same purpose. He takes pleasure in informing his well-wishes that for him the future now looks bright and promising. Such substantial tokens and such cheering assurances has he received that he now feels that he may henceforth count upon a career of triumph; and he assures his good friends that his exertions to benefit, instruct, and interest his friends will always be commensurate with the patronage he receives.

He desires to call particular attention to his *head*. Examined phrenologically, the bumps of wheat, corn, pumpkins, apples, peaches, plows, harrows, hoes, rakes, &c., will appear very prominently developed, while if you take a view of its phiziognomy, it will be seen that the advancement of agriculture, education, domestic economy, useful arts, and good morals, are its distinguishing characteristics.

Old Subscribers.

Old subscribers to the Farmer, who receive this number and do not intend to continue to take it, are requested to return it to us by mail, with their own names and the name of their postoffice distinctly written upon it.

Osage Orange Hedges.

The Osage Orange appears to be gaining steadily and rapidly in favor with the farmers on the prairies of the West, and it appears to be generally conceded that it is superior to any other plant for the construction of a live fence; at any rate as high as the 42nd parallel of latitude. Such of our present readers as have perused the former numbers of the Farmer are familiar with the objections which have been urged against it, and the arguments advanced in its favor. Our object at this time is to notice the present standing of the plant in the estimation of intelligent cultivators, and also, as we have been requested by several of our subscribers, give some general directions as to its cultivation.

The objections urged against it may be stated in general terms to be, that in its natural state it is a tree rather than a shrub; it is too heavy a task to keep it trimmed, its growth being very rapid, and cattle refusing to eat it; the uncertainty about its being long-lived and hardy, like the thorn; being a native of the South, its liability to be killed or injured by frosts; its liability to exhaust the fertility of the soil for several feet on each side of the hedge; and that horses or oxen cannot be made to approach sufficiently near it while plowing, so that a wide strip of ground is necessarily left uncultivated and unproductive. A part of these objections are refuted by Mr. Bryon Jackson, of Bloomfield, Delaware, who gives in the Boston Cultivator an account of his success. He says:

"I commenced in April, 1848, with three pints of seed, sown in drills a foot distant from each other; hoeing and weeding them well. In the spring of 1849, I planted 350 yards; dug the trench 18 inches deep, and where the land was poor, spread earth at the bottom that was collected from the wood pile, planted the sets at eight inches apart, and cut them off two inches above the ground. Each plant sent up two or three shoots, which attained a hight of five six feet that season. The first summer I kept them free from weeds and made the ground mellow by repeatedly hoeing and digging with the spade, and in the spring of 1850, I cut them down to one foot from the ground, cultivating as before. In July I again cut them down to two feet, and in September trimmed them again. In the present year, 1851, they did not require any cultivation. July 10th, the hedge was from seven to eight feet high, when I trimmed and shortened it to three feet six inches. The hedge is now thirty inches in width, and so thick that a small bird cannot fly through it, while the winter does not seem to affect it. I trimmed 350 yards in three hours, and a boy put the brush in heaps in one hour, ready for burning. I have not discovered any enemies except the mole, and it has not appeared since the first spring. I have now 760 yards growing, all of which assumes a very healthy appearance."

The same writer states that he has not yet discovered any injury from the impoverishing of the land, nor does he apprehend any, more than he would from the common thorn of the same hight; but he has been "told by Mr. Solon Robinson, that 'on the prairies of Illinois, where they grow without being trimmed, they impoverish the ground for 10 feet on each side of the hedge;' and thorns will do the same if not kept trimmed." He keeps his common thorn hedges down to four feet high, with a bank along side, and the grain and grass are as good within a foot of the hedge, as elsewhere.

Of the objection that horses or oxen will not approach sufficiently near while plowing, Mr. J. says: "This we consider their greatest merit; we do not desire hedges that horses and cattle can at pleasure eat, trample upon and destroy; we can plow within half the length of the single tree, say two feet, and that is near enough to approach any hedge with the plow."

By taking the hedge in time, Mr. J. says that it is an easy day's work to trim 750 yards, and we doubt not that this is quite correct, when proper implements are used.

Cultivation.—The chief difficulty in the way of the cultivation of this plant, is in the outset—getting the seed to germinate. Of the same lot of seed we have known one man to fail to obtain a single plant, while another has had very good success. This was undoubtedly good seed; but in addition to this there has been large quantities of heated and boiled seed brought into market, which cannot be made to vegetate under any circumstances. We have

condensed from various sources such information as we have been able to obtain in regard to the planting.

If the ground is mellow and not liable to become hard by the rains of winter, and your seed is procured in time, sow the seed in the fall, or during an open spell in winter—but not when the ground is so wet as to be muddy. The next best and most natural method, recommended for all clayey lands, or when the seed is not obtained in the fall, is to mix the seed with sandy earth in the box, during winter, wet it thoroughly, but see that the box allows the surplus water to drain off, then stand it where it will freeze thoroughly, and be exposed to all the changes of weather, till planting time, only seeing that it is kept moist. The seed will not begin to sprout till warm weather in the spring, when it should be sown in well prepared ground, and it will come up as quickly and certainly as corn. If the seed is not procured in time for freezing, a very successful method of preparing the seed, is soaking it for 24 or 36 hours in brine strong enough to swim an egg, then 24 hours more in soft water, standing in a warm room. This we have not tried, but one of our neighbors an experienced German gardener, has found it completely successful with this and other seeds of difficult vegetation. Others of our friends have succeded well with scalding the seeds, in water not quite at boiling point, then soaking for three or four days; others by soaking merely in a warm place for five or six days.

In sowing, prepare a good garden soil, and drop the seed in rows say one foot apart, and one inch apart in the rows, like a bed of onions or beets—covering the seeds full an inch in depth. In this way the plants can be easily be kept clean of weeds by hoeing, &c., the first year, when they will attain the height of 12 to 18 to 18 feet inches, with roots as long the tops. A quart of seed may be expected to produce from 3,000 to 5,000 plants.

It may be sown from the middle of April until the first of June, as a general rule. The safest guide, however, is to commence sowing the seed as soon as the ground is bec ming warm, and vegetation springing up freely. Put the seed to soak, by pouring hot scalding water (rain water is preferable,) over it, and let it remain twenty-four hours to forty-eight hours, or until the germ begins to show itself. In the mean time the vessel should be covered up with a cloth or basket, and set in some place where it will keep in as even temperature as possible.

Whilst the seed is soaking, prepare a piece of ground, (old ground best,)by plowing deep and harrowing and raking thoroughly. Then lay off in rows, two and a half to three feet a part, and open a trench just as you would for sowing peas. Now take the seed and rub in dry sand or ashes, (to facilitate sowing) and drop them one to two inches apart, and cover from one half to one inch deep. Then roll or take a board, eight or ten inches wide, and lay down lengthwise of the rows, and tramp upon it, in order to make the soil more compact. If the season should prove dry, they will need watering freely.

The young plants usually make their appearance in 2 to 6 weeks, owing to the quantity of rain or watering they have had. In case weeds grow freely, it will be *absolutely necessary* to hand-weed the rows before the plants will show themselves, as they are very delicate and tender, until they get three or four inches high, thereby requiring careful culture and a *clear entrance* into light. Notwithsanding all this they become as hard as the locoust in a few days. The rows will now require to be cleaned once or twice a month wtih a cultivator and hoe, according to the weediness of the ground. This course ought to be continued until the plants are large enough to *shade the ground*, thereby keeping down the weeds. The plants will make an average growth of three feet the first season, while some will not be a foot, and others will reach the extraordin ry height of six and seven feet feet, in rich soil.

There are little over eleven thousand seed in a quart, and it is safe to suppose that a quart will produce at laast five thousand plants, if it is properly managed.

There seems to be a great diversity of opinion as to the best manner of making the hedge, Some put a double row, six inches apart, in the rows, setting them alternately thus:

* * * * * *
* * * * *

This would require about thirty two plants to a rod, or two thousand to one thousand feet. While others set them in a single row, from eight to ten inches apart. Before the plants are set in the hedge, they should be cut back to within an inch of the ground, so to be only at this height when the setting is completed. In order to make a *thick base*, it will be necessary to cut back the first years growth, leaving from eight to twelve inches only of that seasons growth. This course must be pursued every spring until the hedge is of the desired height and form.

Portland, Mo., *Dec.* 16th, 1851.

To the Editor of the Valley Farmer.

Dear Sir:—I have this day put in the hands of our postmaster the names of three subscribers besides myself to your valuable paper, with the request that he will not forward them for some 4 or 5 days to give us time to increase the number, which I think will be doubled in that time. As I have been a subscriber to the Valley Farmer, ever since the commencement of its publication, I can feel safe in recommending it to the farming community as a valuable acquisition to their library of useful knowledge. As your columns are open to all, or indeed as all are *invited* to comunicate their experience in *matters and things* to you for publication, my *better half* (as you would say) requests me (while I am writing) to say a few words to you on the subject of making and keeping butter, which she has been induced to do from an arcle on that subject, in the Nov. No. of the Valley Farmer, which you are at liberty to use in any manner you may think proper. Yours, &c. W. J. J.

Agricultural Bureau.—We cut the following paragraphs from the annual report of the Secretary of the Interior.

"The establishment of an Agricultural Bureau is again urged upon the attention of Congress. Agriculture is the great interest of our country, more than four-fifths of our population being engaged in it, and yet it is without a Bureau devoted to its interest, although recommended since the days of Washington.

"The best mode of illustrating the utility of an Agricultural Bureau is to present a condensed statement of the duties which it should be required to perform. It should be charged with the duty of collecting and disseminating information in regard to the cultivation of the soil, in all its branches. It should investigate every proposed improvement in the tillage of the earth or in the construction of implements of husbandry. It should collect from our own and foreign countries every variety of seed, fruit, plant, and vegetable, and distribute them, with full and accurate information as to the soil, climate, and mode of cultivation best adapted to each. Through the agency of our national ships and merchant vessels arrangements could be made for the importation of all the valuable vegetable productions and animals of other countries. This would enable us to appropriate to ourselves the results of the wisdom, experience, and improvements of all the world in regard to agriculture, and we should soon be rendered independent of other countries for many articles, which are now imported at great cost. One or more offices should be connected with it, thoroughly acquainted with the principles of geology, mineralogy, chemistry, and botany, for the purpose of investigating and reporting upon the character and properties of every variety of soil, rock, mineral, and vegetable, and their adaption to useful purposes. To this bureau should also be entrusted the duty of superintending the taking of each decennial census, and of procuring and classifying from year to year all the statistical information which can be obtained in respect to the agriculture, manufactures, commerce, tunnage, revenue, expenditures, financial and banking systems, improvements by railways, canals, and roads, industrial pursuits, and general progress of every State in the Union, and of the principal nations of the world. By this means a vast fund of useful knowledge, which cannot now be obtained, would be always accessible to Congress and the Executives.

"In this department of knowledge our government is behind England, France, Belgium, Prussia, Austria, Russia, Sweeden, Spain, and other countries in Europe."

A National Garden at Washington, to be the most Magnificent in the World.—A correspondent of the N. Y. Evening Post describes the formation of a new Park at Washington, embracing about one hundred and sixty acres, between the Smithsonian Institute and the Pennsylvania Avenue, and from the Capitol to beyond the President's House, embracing within its precincts the Smithsonian Institute, the Washington Monument, and other buildings. The new improvements are under the supervision of A. J. Downing, of Newburg. The last Congress appropriated some $30,000 for this work, to be expended under the direction of the President, who very wisely selected Mr.

Downing as his agent, and invested him with plenary powers. Mr. Downing is now prosecuting the work, which promises to be not only the finest Park in this country, but one of the very finest in the world. There will be about five miles of carriage way through it, and the two main entrances will be, the one through a grand arch near the corner, where Pennsylvania Avenue abuts upon the President's House, and the other at the opposite end of the Avenue, where it abuts upon the Capitol grounds. Mr. Downing's design contemplates an expenditure of from a hundred to a hundred and fifty thousand dollars, and from two to three years of time.

THE GREAT POULTRY EXHIBITION.—The fowl show at Cincinnati the 10th, 11th, 12th, was a western affair to crow over. There were some twenty exhibitors, and one of them, P. Neleedy, near Mount Healthy, had 28 coops and 58 fowls. The exhibition is described as far exceeding the first attempt of the New England Society, and the room was thronged with visitors. Numeroms sales were effected, the prices ranging from $10 to $50 per pair for chickens. A society was formed for the improvement of domestic poultry, and annual exhibitions will be given hereafter. The *Gazette* says:

"The principal breeds of chickens exhibited are the red, white, black, and imperial Shanghae, of Dr. Kerr, Captain Forbes, Marsh and Dr. Wright's importations; the Cochin, China, Mexican, Java, and Native Bantams, and the white, and golden Polish, and black Spanish. There are also splendid specimens of Guilderlands, golden Pheasants, Top Knots, Seafright and Speckled Bantams, Derky, Silky, Frizzly, Bunty and Creeper Chickens, Wild Geese, Bremen Geese, Chinese Geese, Silesian Geese, Domestic Turkies and Ducks, Rouen, Polish, and Muscovite Ducks, together with pigeons of every variety, various kinds of small birds, &c."

BRICK-MAKING MACHINE.—A new machine for making brick wonderfully simplyfying the process, has been invented in New England: It is described as made of iron, simple, compact, and massive, and weighing seventeen tons. It turns out about three thousand brick an hour. It is worked by a steam engine of 20 horse power. Attached to the machine is a pulveriser, which works with wonderful beauty and precision. The clay is first dried, then ground by passing between heavy rolers, then screened or sifted, and passed into the machine in a uniform state, where it is subjected to the immense power of the machine, and a beautiful perfect-faced brick is produced, almost as smooth and dense as polished marble. The bricks are taken from the machine and immediately set in kilns ready for burning, thereby obviating the necessity of spreading on the yard to dry before burning, as well as injury or loss from wet weather. By this process a superior face brick can be produced, at less expense than the coarsest common brick by the old method.

Many of the physical evils—the want of vigor, the inaction of the physical system, the languor of histerical affections—which are so prevalent among the delicate young women of the present day, may be traced to a want of well-trained mental powers and well-exercised self-control, and to an absence of fixed habits of employment. Real cultivation of the intellect,—earnest exercise of the mental powers—the enlargement of the mind by the acquirement of knowledge, the strengthening of its capabilities for effort for endurance of inevitable evils, and for enegy in combating such as they overcome, are the ends which education has to attain. The power of the mind over the body is immense. Let that power be called forth—let it be trained and exercised, and vigor both of mind and body, will be the result. There is a homely, unpolished saying, that "it is better to wear out than rust out!" But it tells a plain truth; rust consumes faster than use. Better, a thousand times better, to work hard, even to shortening of existence, than to sleep and eat away this precious life, giving no other cognizance of its possession. By works of industry, of whatever kind it may be, we give a practical acknowledgement of the value of life, of its high intentions, of its manifold duties. Earnest, active industry, is a living hymn of praise, a never failing resource of happiness,—it is obedience, for it is God's great law for mortal existence.—*Moore's Rural New Yorker.*

The Rev. Mr. Madison, in a missionary speech at New York, announced that of eight hundred millions now on the globe, seven hundred millions "worship at false shrines, or are only nominal Christians." He would have made no radical error if he had included the remaining hundred millions in his list of *nominal* christians. Where can we find fifty men together, who have made much more than a nominal assumption of that religion which says "thou shalt love thy neighbor as thyself?"—To carry out such a religion in earnest would be considered quite fanatical now-a-days. But even such Christianity as we have is a much scarcer commodity than Mr. Madison thinks. The Boston Puritan claims that not more than one-fortieth of the population of the World has any evangelical Christianity. The remaining thirty-nine fortieths it pronounces "unregenerate."

[*Buchanan's Journal of Man.*.

New Discovery.

The following we clip from a letter of the Paris Correspondent of the St. Louis Intelligencer:

I am going to draw very largely on your credulity. Believe me or not, the fact is as I relate it, and I have on my drawing table a withered bouquet in evidence of it.

At the Casino des Arts, Boulevard Montmartre No. 10, the following placard is posted: "*Fleurs Encloses A La Minute.*" Go enter; you will find yourself under a tent in which is a temporary flower-bed containing about forty plants which have been recently put in, and whose dried and withered leaves show that they have not taken root. The bill promises that M. Herbert will make those plants bloom and flower before your own eyes, within ten or fifteen minutes. At three 'o-clock precisely, the operation begins. The plants about to be experimented on were gilly-flowers, chrysanthemums, dahlias, roses, &c. They were full of buds, but so small you could not tell what color they were; indeed they were so small they could hardly be distinguished.

Suddenly a small bell rang, and M. Herbert and his gardeners came in; they poured at the feet of a dahlia and a gilly-flower, planted in the ground, a good deal of reddish looking iquor, and then they covered them with an ordinary bell-glass; immediately the temperature is increased, for the bell-glass is filled with dew precipitate on the sides of the bell-glass by the lower temperature of the external air. Applying their hands to the bell-glasses, apparantly fearing that the heat would become too great, they open a small valve arranged in the glasses, and watch with anxiety the operation. In ten minutes the gilly-flowers and dahlias are in full bloom. M. Herbert removes the bell-glasses, cuts the flowers and gives them to the visitors. You can see distinctly every operation of nature, from the swelling of the bud to the bursting into life of the flower. The same operation with like success was performed on the laurel.

"M. Herbert then suspended in the air upon columns three large pots containing roses, pinks, heliotropes, and had the vase of each of the pots surrounded by a large half-circle of thick wood, poured at the feet of the plants his magic liquid, and placed the bell-glasses on the wood to avoid all suspicion of trickery. In ten minutes—all were in flower. After this he gave us a bunch of daisies, which bloomed in five minutes. Do not ask me to explain this—"There are more things in Heaven and earth, Horatio, than are dream't of in your philosophy."

The Reapers.

Our readers have been apprised that a medal was awarded in England to Mr. McCormick for his Reaping machine, and that at an exhibition of its working, it received unbounded commendations from the English noblemen and farmers present. Accounts of the success of this machine have been published in the Valley Farmer, and it seems but justice that we should comply with the request of those interested, and insert an account of trial betweex this and Mr. Hussey's Reaper, at which the latter appears to have achieved a most signal triumph.

We have received a letter from one of the proprietors of Mr. Hussey's machine, in which he says: "Probably you have seen notices in the papers of Mr. Hussey's success in England, which is far greater than I dared to hope after his unfortunate absence from the trial by the Jury who awarded the medal of the Great Exhibition. Mr. H. is also taking out Patents in France, Prussia and Russia. It is rather fortunate than otherwise that the grain was in so bad condition, because it tested the two machines in the most important particular. There are more than 40 machines that will cut grain when it stands well. But the one that does it best under *adverse circumstances* and will also *Mow* well, without additional cost is the machine generally wanted, and this I believe to be the position Mr. H's machine occupied."

The trial was had before a Jury appointed by the Cleveland Horticuitural Society, to whom the following questions were submitted and who returned the answers subjoined.

The Machine to be tried on Wheat and Barley, insuch order, and for such lengths of time as the said jury may direct.

The Jury to have full power to use any means they may deem advisable, in order to put the Machines to the severest trials.

The Jury in deciding on the merits of the

two Machines to take into their consideration—

1—Which of the two cuts the corn in the best manner?

2—Which of the two causes the least waste?

3—Which of the two does the most work in a given time?

4—Which of the two leaves the cut corn in the best order for gathering and binding?

5—Which of the two is the best adapted for ridge and furrow?

6—Whtch of the two is the least liable to get out of repair?

7—Which of the two, at first cost, is less price?

8—Which of the two requires the least amount of horse labor?

9—Which of the two requires the least amount of manual labor?

And, which ever of the two Machines so tried and tested, has in it combined the greater number of the above qualifications, according to the opinions of a majority of the Jury, is to be pronounced the best instrument.

The Jury regret exceedingly the most unfavorable state of the weather, on the days of Trial, (a perfect hurricane raging the whole of the first day,) and their consequent inability to make so full and satisfactory Trial as they could have wished.

The Machines were tested on a crop of Wheat computed at 25 bushels per acre, very much laid; and on Barley at 25 bushels per acre, very short in the Straw, and if possible more laid than the Wheat.

The Jury, taking the different points submitted to their consideration, in the order as they occur above, express—

1.—Their unanimous opinion, that Mr. Hussey's Machine, as exhibited by Messrs. Wm. Dray & Co., cut the corn in the best manner, especially across ridge and furrow, and when the Machine was working in the direction the Corn laid.

2.—By a majority of eleven to one, that Mr. Hussey's Machine causes the least waste.

3.—Taking the breadth of the two Machines into consideration, that Mr. Hussey's did most work.

4.—That Mr. Hussey's Machine leaves the cut Corn in the best order for gathering and binding. This question was submitted to the labourers employed on the occasion, and decided by them as above, by a majority of 6 to 4.

5.—Their unanimous opinion that Mr. Hussey's Machine is best adapted for ridge and furrow.

6.—This question was referred by the Jury to Mr. Robinson, foreman to Messrs. Bellerby, of York, a practical Mechanic of acknowledged ability, whose report is appended below.

7.—That Mr. Hussey's Machine at first cost is less price.

8, 9.—The Jury decline to express a decided opinion on these points in consequence of the state of the weather.

The trials took place on the Farm of Robert Fawcitt, of Ormsby, near Middlesbro'-on-Tees, who in the most liberal and disinterested spirit allowed his crops to be trodden down and damaged to a very great extent, especially on the 25th, when in spite of the storm an immense crowd assembled to witness the trials.

The Jury cannot conclude their Report without expressing the great pleasure they have derived from seeing two Machines brought into competition that were able to do such very good work, and also at witnessing the friendly, straightfyrward, and honorable way in which the Exhibitors of the respective Machines met on this occasion.

Signed on behalf of the Jury,
W. F. WHARTON, FOREMAN.

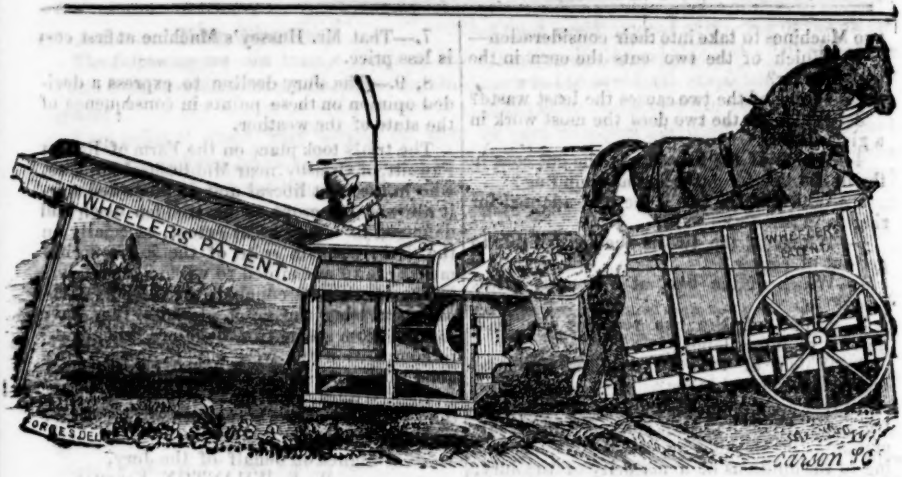
Mr. Robinson's Report on Quesion 6.—

Having carefully examined both Machines, and given the subject due consideration, I am of opinion that M'Cormick's Reaping Machine, as at present made, is most liable to get out of order. (Signed)

THOMAS ROBIFSON.

FOOT-ROT.—This disease has been the dread and scourge of farmers everywhere, and has been the means of discouraging a great many from growing wool. It has, also, been the fruitful source of any quantity of quackery. We will engage to cure every sheep in the Union and warrant them for twenty-five cents per head. And we will tell our readers how to it without any humbuggery about it.

Take about four ounces of the *sulphate of copper*, or as it is known at the shops blue vitrol, dissolve in a quart of rain water. Cuttle your affected sheep, pare the hoof away from all the part affected; be sure of that, even if it takes it all off. Then apply the solution to every part of the foot, carefully and thoroughly. If well done the cure is pefected. About a week after examine the foot, lest you may not have thoroughly pared off all the hoof from the affected part. The sheep ought to be kept in a dry pasture for a week or so after the application. If any subscriber wishes to go into the humbuggging business, he can take the above solution, costing about six cents, put in a little wine, and a little tobacco, just enough to disguise the color of the liquor, look very wise and use some very long hard names, and he will find no difficulty in getting plenty of customers especially among those that do not take the Wool-Grower.—*Wool-Grower.*



Wheeler's Combined Thresher and Winnower.

Wheeler's Combined Thresher and Winnower.

In the successful completion of this Machine, the long desired object is attained of Threshing and Winnowing grain with but two horses, and at the same time with satisfactory and desirable speed and despatch. The COMBINED THRESHER AND WINNOWER is so simple in its construction that the works are all driven by two bands, which includes the one which gears it to the horse power. There is, consequently, but little friction produced, and the liability to get out of order, which complicated Machines are subject to, chiefly avoided. The Thresher and Winnower is well adapted for field threshing, being light and compact, and requiring but little time to load and unload it. The whole machine,including the Horse Power, is conveniently carried on a two horse wagon, the weight being less than 2500 lbs.; and can be unloaded and set in readiness to work in less than thirty minutes, and re-loated ready to move in the same time.

From the Rural New Yorker.

This combined machine is in operation on the Fair Ground, and deservedly attracts attention. It is the invention of Messers. WHEELER, of Albany, manufacturers of WHEELER & Co's celebrated Railway Chain Horse-Power and Overshot Thresher. The Grain Cleaner (or Winnower and Separator,) is of recent origin, but has been thoroughly tested, and given entire satisfaction so far as we have ascertained. We saw it in operation on the farm of Mr. Merritt, of Parma, a short time since, and were surprised at its easy and perfect performance. Never before had we witnessed a more complete combination of machinery for the purpose, worked so well and cheaply,—a perfect thresher, winnower, and separator, driven with ease and rapidity by two horses and requiring only four men to feed, remove straw and bin the grain. The power being in the barn and near the machine, no driver was necessary for the team. Mr. Merritt states that, a day after our visit, with the same team and manual force, he threshed and binned a hundred and fifty bushels of wheat in a day.

The Power and Thresher we need not describe as most of our readers are probably familiar with their construction and operation. The cleaner is attached to the Thresher, and is driven by a single band in addition to the one required to move the threshing cylinder.

From the Plough, the Loom and the Anvil.

Buckwheat.

Until within a few years past, this has been considered almost a valuless crop by many who were considered our most discerning and successful farmers. Indeed, many carried their predjudices so far that they would not, under any circumstances, allow it to be grown upon their lands, supposing it so exhausting to the soil. Others, more tolerant in their feelings, would sometimes rase a small field, but it must be sown on the poorest corner of the farm, where no other crop would grow, and but an ordinary one of this grain. Then the farmer who was in the yearly habit of raising it was considered a slim affair, one bent on

the irrecoverable ruin of his farm. In late years, however, the value of the crop has been more justly appreciated, so that now the number of those who do not raise it is like that of those who formerly cultivated it—very small.

The advantages attending its culture are numerous, and among them the following stand prominent: Its quick maturity, and consequently the delay that may attend tilling the land and sowing the seed, which latter always takes place at the north after all other crops are sown and planted, and from the 20th to the last of June, or between the time of the first and second dressing of the corn-field, a season of comparative leisure to the farmer. Then its maturity is at a time when no other crop requires immediate attention, it ripening in September, between the ingathering of the summer and common fall crops.

It is a crop that will succeed with tolerable certainty when other crops will fail. Low, cool, moist, mucky lands, which are seldom dry enough for ploughing in early spring, and which are liable to suffer from drought at the very time when early-sown grain requires moisture, are admirably adapted to this crop. It germinates quickly, and the young plants soon throw their branches abroad, so as to shelter the earth from scorching sunbeams, and enable it to retain its moisture, to be given out as the growing wants of the plant require.

Buckwheat is a cleansing crop to the soil. In many of the old fields in the longer-cultivated portion of the country, weeds of various loose kinds have crept in as well as stealthy bushes or wild grass, and usurped the place of the more tender and delicious herbage. Wherever this is the case, it is decidedly the best crop to restore fertility and healthful cleanliness to the soil, after the bushes are removed and the sward well inverted, that can be cultivated. Its roots penetrate deep into the soil, which tends to its pulverization, and its shadowing qualities almost forbid any other plant, however strong may have been its foothold, to start beneath its branches. We have in our minds now whole fields which a few years since were covered with a vexatious, overspreading variety of potentilla, which, by cultivating with buckwheat for one or two successive years after the bushes were removed, were transformed into beautiful and productive meadows, free from the unseemly blemishes which but a short time ago disfigured and concealed their surface.

It is a good crop to stock with. It always leaves the ground in a loose friable condition, so that the roots of grass spread rapidly and freely. Although, from its shading propensities, grass seed sown with it will not show much progress while the crop of buckwheat is on, yet, the harvest is so early, the grass which is to follow has an opportunity to become well set in roots before the coming of winter, and thus be enabled to withstand the vicissitudes that winter brings. It is an article that farmers are prone to leave to nature and its own resources; but there is no crop that shows the benefits of manure, plaster and ashes, more than this. Its uses are too well known to be dwelt upon. The straw, which by many is considered valueless, is an excellent manure for potatoes, and is highly valuable as a litter to place around fruit trees, its tendency being to rapid decay, and its effect to loosen the soil and leave a light and wholesome mould for its benefit.

W. BACON.

RICHMOND, (MASS.) Sept. 5. 1851.

To Promote the Health of Cattle.

Mix, occasionally, one part of salt with four, five, or six parts of wood ashes, and give the mixture to different kinds of stock, summer and winter. It promotes their appetites, and tends to keep them in a healthy condition. It is said to be good against bots in horses, murrain in cattle, and rot in sheep.

Horse-radish root is valuable for cattle. It creates an appetite, and is good for various diseases. Some give it to any animal that is unwell. It is good for oxen troubled with the heat. If animals will not eat it voluntary, cut it up fine and mix it with potatoes or meal.

Feed all animals regularly. They not only look for their food at the usual time, but the stomach indicates the want at the stated period. Therefore feed morning, noon, and evening, as near the same time as possible.

Guard against the wide and injurious extremes of satiating with excess and starving with want. Food should be of a suitable quality and proportioned to the growth and fatening of the animals to their production of young, and milk, and to their labor or exercise. Animals that labor need far more food, and that which is more nutritious, than those that are idle.

Guard all description of stock against cold and exposure, especially against cold storms of rain, sleet, and damp snow, and against lying out on the cold ground in cold nights, in the spring and fall.

In dry time, see that animals have a good supply of pure water. When the fountains are low, they drink the drainings, streams and passages of water which are unwholsome.

If barns and stables are very tight and warm ventilate in mild weather, even in winter.

In feeding animals on apples or roots, begin with a small quantity and gradually increase it. It would be better to have all changes made gradually.—*Amer. Vet.*

The New School Presbyterian Synod of the Western Reserve, at its late meeting, passed a vote condemning the practice of dancing, and enjoining on church sessions to institute discipline whenever it occurs among their members.

Bay State Shawls.

We extract the following from an interesting letter written by E. D. Mansfield, Esq., of Chillicothe, to the *Cincinnati Gaz.*, descriptive of the woolen manufactories of Lawrence, near Boston, and especially of one establishment, the "Bay State Mills."

The ground occupied by the "Bay State Mills," is 1,000 feet in length and 400 in breadth; thus occupying just the space of two squares and a half in Cincinnati. The buildings surround the whole; but there is an interior yard for air and convenience. Some of the buildings are nine stories in height, but generally six. The flooring occupies more than two millions of square feet.

The "boarding houses" are not included in the above. They are ranges of three story brick buildings, numbering thirty-two; and having all the conveniences necessary to comfortable living.

Number of men employed, 1,100; women do. 1,150. Nothing like such an array of operatives can be found in any other establishment of our country, and no other class of laboring people are better off, if as well.

Wool Consumed.—In the week ending the 23d of Augnst, the consumption of wool was 12,600 pounds per day, or, at the rate of three millions eight hundred and ninety-three thousand four hundred pounds per annum! If this had all been Ohio wool, it would have been one-half the entire surplus wool of the State. But these companies actually consume a great deal of foreign wool, some of it is brought from Morocco and some from South America. This is the coarse and long staple. But how unnatural for a country like this to *import* wool!

Products Manufactured.—There are four kinds of articles in these mills: shawls, cassimeres, satinets, and felt cloths for overcoats. The principal products are: shawls, 1,000 per ay; satinets, 1,000 yards per day. These great facts will give you an idea of the magnitude of these works, and of their inevitable effect upon the wealth and industry of the people. But there are other things than these mechanical results of yet greater importance to the welfare of society. Go with me while I estimate the social effects in economy, in comfort and in the development of mind. These Bay State Shawls are sold at from $3 to $8 each, according to size. Mr. John D. Jones, our fellow citizen, tells me that ten years since they were sold at $15 each. As these shawls are really a very useful article to women, (who too commonly dress thin,) we can see how great a saving is made in a necessary article by the reduction of price one-half. How much greater saving is it when it is from our own wool, and by our women they are made!

I come now to that which America boasts so much, the inventive power, which clothes this machinery with life, and sends it forth conquering and to conquer over all inanimate nature, and to successful competition with all rival powers. I will give an example: A certain part of these shawls had to be spun by hand. This process was expensive; it was necessary to do it by machinery, or there was danger of a failure. One of the proprietors, whose name is known throughout America, employed a very ingenious man to make, if possible, a machine to accomplish it. He sat down with nothing but his brains to work with and at the end of five or six months produced the machinery ready to do its work. the cost of doing it was only *one twenty-fifth part!* Two cents did what fifty was required to do before. The saving in the amount of work done, was equal to all the profits of the establishment, and placed the works out of danger. It was the triumph of the human mind!

A Steam Carriage for Plank Roads.

The Home Journal says that Mr. Fisher, a well known artist of New York City, has recently patented a steam carriage for ordinary travel on plank and macadamized roads. As no intelligible description could be given without drawings, none is given, except that the inventor has introduced a new method of working steam expansively—by the combination of the radius and parallel rods he gives great steadiness to the machines, even at the highest velocities, and by other arrangements for cutting off the steam, &c., enables one person to work the engine with perfect ease and effect. A committee of the Mechanic's Institute, consisting of three Professors, report favorably upon this instrument, and the editors of the American Artisan, competent authorities, speak of it in terms of praise.—We would suggest to the Sheboygan and Fond du Lac plank road Company the propriety of procuring one of these carriages for their road, should they work well.—*Lake Journal.*

We are not of an imaginative turn of mind, yet we have long believed that no very serious obstacle existed to the successful application of steam power to the purpose of transportation on plank roads. Scarcely any striking invention has been brought into successful operation but what greater obstacles have been first overcome. Ten years will witness numbers of quiet inoffensive looking vehicles travelling along the plank between here and Watertown, at the rates of eight miles an hour, and the only wonder they will create, will be at their not having been sooner introduced.—*Milwaukie Commercial Advertiser.*

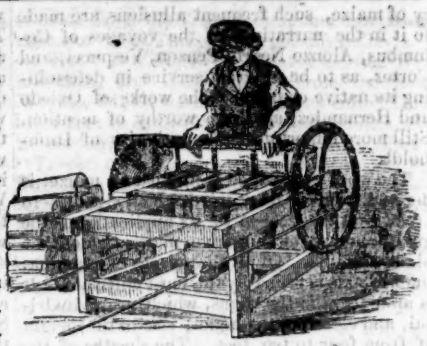
Lawrence's Saw Mill.

This mill is used on most of the Railroads in the country for sawing wood for locomotives, and by Farmers for Sawing Wood for stoves, &c.; and also by lumber-men for cutting up slabs.

With a one horse power it will cut ten to fifteen cords of wood, twice in two, per day; with two horse power it will do much more.

We have a few of these mills for sale, carrying a 24 inch saw, which we can furnish with either the one or two horse power, or alone.

Price of mill $35, with cost of transportation from Albany.



Lawrence's Saw Mill.

From the Western Agriculturist.

Indian Corn.

We give in this number, an Essay on Indian Corn, its history, and its importance as an agricultural product, taken from the "Transactions of the New York State Agricultural Society," of 1849. The Essay gives indications of much research; and probably there is not in our language, nor in any other, so good an exposition of the history of this important plant. There is more of nutriment and of money value of this grain raised in the United States, and perhaps in America generally, than of any other one product of human labor.

Mr. DELAFIELD, President of the N. Y. State Agricultural Society, in introducing the Essay, says:

"Mr. Flint has devoted himself to clear away the mists of time, which have obscured the original habitation of our Indian corn, so we find his researches traveling back to Babylonian Agriculture. In truth, he seems to have marshalled before him 'all the various and conflicting accounts' of travels and historians, and weighing them with discretion, to have drawn natural and correct conclusions. As practical farmers, more familiar with the husbandry than the history of Indian corn, we are disposed to think and suggest that a species of corn may be indiginous to Africa, to Egypt especially, and not known in America. We allude to a corn, the description of which is similar to Indian corn, in regard to the stalk and leaf, but the grain is produced at the pinnacle of the stalk where the tassel of the Indian corn shoots forth. This plant has been grown in this country from a seed said to be taken from an Egyptian tomb; it rises to 8 and 10 feet in height, and, as before said, the stalk and leaves are in all respects like the Indian corn."* If so, may we not thus account for one of the links in the chain of difficulty which has long bound the European inquirer.

We think Mr. Flint has been very successful in throwing much and additional interest over the history of Indian corn, and recommend that the thanks of the Society be presented to Mr. Flint for his essay, with a silver medal.

J. DELAFIELD, *Chairman.*

ESSAY ON THE HISTORY AND IMPORTANCE OF INDIAN CORN, AS AN AGRICULTURAL PRODUCT.

BY CHARLES LOUIS FLINT.

The complete history of Indian corn seems never to have been written by an American. The materials for it must be sought in old and uninviting volumes, in the narratives of voyages and travels, and in no less than five or six different languages. The skilful labor required to bring together the various and conflicting accounts, is by no means small. The writer who would undertake such a task, should possess much knowledge of the botany of the western continent, as well as that of Asia and the Asiatic isles, to be able to draw the most natural and correct conclusions of his own. He who shall do it, as it should be done, will render a great service to American agriculture.

In France, Parmentier published a work on maize, in 1785. This was soon followed by that of Harasti, in Italy, devoted to the practical details of the subject, in 1788. In Germany, Burger published a work on the Natural History and Culture of Maize, in 1809. Still more recently, the labors of Bonafous, in France, have thrown much light and interest upon the same subject. In Spain, though no very valuable work has appeared on the histo-

*The Editor of the Western Agriculturist exhibited at the second Ohio State Fair a head and stalk of this Egyptian corn, which was raised from grains taken from a bunch of heads of this grain found in the hand of an Egyptian mummy in one of the catacombs in Egypt. It was raised by an uncle of mine, whose daughter, in New York, received it from the hands of the gentleman who took it from the hands of the mummy. Similar heads of this corn have been raised in Ohio, also, from grains taken from the hands of mummies in Egypt. A gentleman at the Fair told me he had raised it in some quantity for years past to feed his chickens.—ED. W. AGRICULTURIST.

ry of maize, such frequent allusions are made to it in the narratives of the voyages of Columbus, Alonzo Negro, Penzon, Vespucci, and Cortez, as to be of great service in determining its native country. The works of Oviedo and Hernandez, also, are worthy of mention. Still more important is the authority of Humboldt.

The word ZEA, which is applied to maize, is derived from a Greek word which signifies TO LIVE; and the reason of its application is the great amount of nutritive matter which the plant contains. Of all the species of gramina, the ZEA MAIS is probably the most cultivated. It is annual; and the stems, which are cylindrical, and closed at the nodes, rise to the height of from four to ten feet. The sheaths of the leaves are split, the flowers are in double rowed, imbricated bracts, the male flower being placed at the apex of the stem. Each grain is furnished with a style, which extends along the inner sides of the sheaths, and hangs like a fine silken thread, forming the tassel. The stamens are three; the seeds are rounded on the surface, compressed at the sides, and arranged in rows. They are extremely farinaceous, or mealy, which gives the plant its value. The varieties are innumerable. These varieties are owing, in part, to difference of culture, climate, and soil. Of these we shall speak more at length hereafter.

Naturalists have long disputed the origin of maize. The question is one of interest, inasmuch as some claim our own as its native country, while others contend that it came from the east. It is proper to state, briefly, the argument as it stands, after which we shall be better able to draw somewhat satisfactory conclusions.

Bock, the first naturalist who wrote of it, 40 years after the discovery of America, asserts that it came from Arabia, and was called WHEAT OF ASIA, (ble d'Asia,) GREAT WHEAT, and GREAT REED.* But four years after the same opinion is maintained by Ruellius,† whose assertions are perhaps worthy of respect. Fuchsius also declares that it came from Asia to Greece, thence to Germany, and was called WHEAT OF TURKEY, because the Turks at that time possessed all Asia.‡ Many writers have taken the authority of the old map or chart of Incisa, of the thirteenth century, to prove that it came from the East. Of such we may mention Sismondi,§ M. Michaud,¶ Gregory,** Lonicer,†† Amoreux,‡‡ and Reynier,§§ who was familiar with the history of agriculture. This chart describes a grain of a golden color, and partly white: "Granis de colore, et partim albo," under the name of MELIGA. Crescenzio describes the method of cultivating this grain, which is very nearly the same as that of cultivating maize at the present day. The Portuguese writer, Santa Rosa de Viterbo, also asserts that it was known in the thirteenth century.* Whatever may be said of its origin, it seems to have been first introduced into Turkey, from whence it made its way to the West. This is shown by the names which have been given to it in Europe, several of them indicating that it came through Turkey. But according to some Spanish authors, it was brought into Spain by the Arabs.† A Chinese writer of the middle of the sixteenth century, draws the figure of the maize, as known in China, which is said to correspond with some species of maize now known. Some travelers who have visited the Asiatic isles, have inferred that it was cultivated about the equator, in that vicinity, from great antiquity, and that it passed from these isles into China, and thence to the interior about the Himilaya. John Crawford, who lived for years in the island of Java, says: "Maize is, next to rice, the most important agricultural product among the great tribes of the Indian Archipelago." Mr. Rifaud asserts that some kernels were found in the sarcophagus of a mummy in Thebes, in 1819. The well known orientalist, De Herbelot, mentions‡ a passage of Mirkond, a Persian historian, which might lead us to suppose that maize was known to the old world long before the discovery of the new.

Now the question arises, whether the meliga described in the old chart of Incisa alluded to, was identical with the zea mais? Bonafous says on this point, that the description of the meliga from the east corresponds to maize; but that according to the learned author of the Flore d'Egypt, in the description published by order of Napoleon, it can equally well be applied to the millet of India, in which the grains pass, in some of the varieties, from yellow to white. But Carden says,§ distinctly, that maize strongly resembles the plant known in Italy as melica, or SORGHUM, which is the meliga of Incisa. So of several other authorities, as Matthioli and Georges de Turre. Moreover, Bonafous himself declares that it is evident, to look at it, that it is evident, to look at it, that the meliga is a real maize, and he is therefore inclined to believe that it was known in Asia and Europe before the discovery of America.

After this accumulation of evidence in favor of its Eastern origin, it is worthy of remark tha

*Hist. Nat. du Mais, p. 11, par M. Bonafous.
†De Natura Stirpium, Lib. xi., c. xxix. p. 428, 1536.
‡De Historia Stirpium, pp. 824–5. 1542.
§Boigraphie Universalle, Tom. xxix., p. 542. Note.
¶Histoire des Croisades, 4th ed., Paris: 1826. Tom. iii., pp. 348–9.
**Annales de l'Agriculture Francaise.
††Naturalis Historiiæ opus novum. Frankfort: 1551.
‡‡Memoire sur les Mais. 1784.
§§Feuille d'Agriculture du Canton de Vaud. T. vii.

*Lonafous Hist. du Mais.
†Valcarcel, Agricultura Genera y gobierno de la casa de campe. Valencia.
‡Bibliotequo Orientale. 1778. Tom. iii., p. 137.
§De Subtilitate. Lib. xxi. p. 389. Basil 1553.

some have even asserted that it was known to the ancient Greeks and Romans. But such conjectures as that the black millet brought from India to Italy in the time of Pliny,* was the maize, are probably ill-founded. Even Mr. St. John, whose great familiarity with the domestic affairs of ancient Greece entitles him to the highest respect, says:† "In the region beyond Bactria, a species of corn was found which must unquestionably have been maize, since the grains are said to have been as large as olive stones; and to maize alone can we apply Herodotus' description‡ of the wheat found in Babylonia, the straw of which was encircled by leaves four inches in diameter, and its return from two to three hundred fold. Now, in wheat I believe so prodigious an increase is all but impossible; whereas a still greater return might be obtained from the Indian corn." And there have not been wanting those who think that Homer distinctly mentions maize,§ as well as the naturalist, Theophrastus, in his history of plants,¶ and the allusions that are frequently made in the Bible** to a grain that could have been no other than maize or Indian corn. Such was the opinion of William Cobbett.†† It arose, however, from utter ignorance of the ancient mode of planting or sowing wheat, which will be alluded to hereafter.

It is now proper to enumerate, briefly, the authorities on the other side of this question; those who believe maize to be indigenous to America, and that the New World should have the credit of giving it to the Old. And here, it may be, we shall find naturalists not less celebrated than those already mentioned. Among the first, in point of time, is Dodonæus,‡‡ who lived in the middle of the sixteenth century, and wrote but shortly after Bock and Fuchsius. After him came Camerarius,§§ then Matthioli, one of the most learned and justly celebrated men of his time. He affirms¶¶ that Turkish wheat (BLE TURC,) is not a proper name for maize; that it should be called Indian wheat, (BLE D'INDE,) and not Turkish wheat, because it came from the West Indies, and not from Asia nor from Turkey, as Fuchsius believes." So Ray* and others say that Fuchsius was mistaken, and that it came from the New World. M. Dumeril thinks it was called Turkey wheat in consequence of its long stalks. So the authority of Heynius is to the same effect: "Turcici nomen non ex vulgo accepit quod ex Turcorum terris exportatum fuit, verum ab aristarum similitudine aliqua cum crista seu pluma in apice Turcorum capitibus imposita."

Gerardo, after describing several kinds of "Turkey wheat,"§ which were evidently species of maize, goes on to say: "These kinds of grain were first brought into Spain and then into the other provinces of Europe, not, as some suppose, out of Asia Minor, which is the Turk's dominions, but out of America and the islands adjoining, as out of Florida and Virginia, or Norembega, where they used to sow, or to set it, and to make bread of it, where it groweth much higher than in other countries." He also takes care to say that it was not known to the Greek and Latin authors. M. Parmentier is of the opinion that it had American origin.

M. E. Discourtilz also says maize was introduced into Europe by the Spaniards, who brought it from Peru.* It is important to mention, also, the authority of Thomas Nuttall,† who thinks it was indigenous to tropical America. The same conviction is expressed by the learned Mrs. Somerville.‡

It remains to speak of the important conclusions of Baron Humboldt. "It is no longer doubted," says this learned naturalist, in his Essay on New Spain, "it is no longer doubted among botanists, that maize, or Turkey corn, is a true American grain, and that the old continent received from the new." Again, he says: "On the discovery of America by the Europeans, the zea maize (TLAOLLI in the Aztic language, MARKIZ in the Haitian,) was cultivated from the most southern part of Chili to Pennsylvania." Massachusetts, he might have

*Pliny Naturalis Historia. Lib. xxvii. c. 7.

†History of the Manners and Customs of Ancient Greece. Tom. iii., pp. 406–7. London: 1842.

‡Herodotus. Lib. i., §193, p. 80, of Wheeler's ed. Boston: 1842.

§Od. Lib. iv., verses 41 and 604.

¶Theop. Historia Plantarum. Lib. viii., c. 4. It should be noticed that his description is very general. Speaking of eight kinds of wheat which had been imposted into Greece from Asia, he says that one of these varieties was heavier than the rest. May not this have been the variety to which Herodotus alludes, and the same as that which Mr. St. John says was called Camel's tooth?

**2d Kings, iv., 42. Job xxiv., 24. Leviticus ii., 14 and xxiii., 14. Deut. xxiii., 24 and 25. Gen. xli. 5. Matt. xii., 1. Ruth ii., 14, and Sam. xvii., 23.

††See also Hooker Jour. of Botany, (Classical Plants of Sicily,) 1834, p. 219.

‡‡Stirpium Historæ Pemptades. Antwerp, 1583.

§§Hortus Medicus et Philosophicus. Frankfort: 1588.

¶¶Discorsi nei sei libri di Dioscoride. 1645. Described also in the Commentari in lib. primum Dioscoridis, p. 319. 1598.

*Herball or General Historie of Plantes, p. 82, London, 1633. This curious old work contains plates of the different species of maize then known, as well as the millet and the sorghum, with which the maize was often confounded. The plates show a very marked digerence. It is amusing to see how little the true qualities of maize were known at this time in England. Turkey wheat, he says, doth nourish far less than either wheat, rye, barley, or oats. The bread which is made thereof is meaty white without bran; it is hard and dry as biskat is, and hath in it no clamminess at all; for which cause it is hard of digestion, and yieldeth to the body little or no nourishment; it slowly descendeth and bindeth as that doth which is made of Millet or Panick. We have as yet no certain proof or experience concerning the virtues of this kind of corn; although the barbarous Indians, which know no better, are constrained to make a virtue of necessity, and think it a good food; whereas we may easily judge that it nourisheth but little, and is of hard and evil digestion, a more convenient food for swine than for men!

†Flore Pittoresque et Medicale des Antelles, Paris, 1829.

‡Nuttall's Works, vol i, p. 203.

§Physical Geography, p. 274.

said, for such was the case. "According to the tradition of the Aztic people, the Toultecs, in the seventh century of our era, were the first who introduced in Mexico the cultivation of maize, cotton, and pimento. It might happen, however, that these different branches of agriculture existed before the Toultecs, and that this nation, the great civilization of which has been celebrated by the historians, merely extending them successfully. Hernandez informs us, that the Otamites even, who were only a wandering and barbarous people, planted maize." Thus we see it was cultivated in America long before the discovery, and formed a most important article of food for centuries.

Having candidly stated the various authorities on this question, we are now prepared to proceed in our investigation. And first, let us say, that though we should consider it no small gift of the new world to the old, it is not difficult, on a question which does not affect either personal or nation honor to free our minds from prejudice and partiality, and study with a desire to ascertain and establish the truth. We are not convinced by the assertion of some or by the arguments of Bonfous and others, to prove that maize originated in the east. They have not made out a satisfactory case. It should be borne in mind that the authority of the early writers is not always to be relied upon. They possessed none of the advantages which modern science has laid open to pursue their investigations. They could not be accurate on questions of this nature. It is very probable that maize came into Europe by way of Turkey and the Levant, which gave it the name which it then bore, and which would be likely to deceive a naturalist of the sixteenth century, in regard to its origin. Then it is very easy to conceive how a careless statement made by a writer three hundred years ago, would be taken on his authority, and thus gain a credit which it did not deserve. Instances of this occur on almost every page of the old historical writers, as any one who is at all familiar with the works of Sir Thomas More and the old chroniclers can testify.

It is a remarkable fact that maize is not mentioned by travelers who visited Asia and Africa before the discovery of America. These travelers to foreign parts are often very minute in their descriptions of the productions of the soil. But the maize was never described in Europe until after the discovery. This most certainly argues very strongly that it was not known.

It is also a remarkable fact that it was universally cultivated on the western continent at the time when the Europeans landed here. This is proved by P. Martyr,* Ercilla,† Jean de Lery,* not to mention Torquemada‡ and others, who can tell us that the first Europeans who set foot on the New World, saw, among wonders, a gigantic wheat, with long stalks, and that this wonderful wheat was the maize. The harvesting of it was celebrated by the people with religious festivals. Sacrifices were prepared with it. With it the Mexicans formed idols. It constituted almost the only food for all the tribes in Mexico, in Peru, in Brazil, at the Orinoco, and the Antilles. It served for money. A theft of seven ears the Mexican laws punished with death.

It is a still more curious fact that immediately after its introduction into Europe, it spread with great rapidity into every country and province where the climate was thought to be suited to it. Now if it had been known in Asia, if it had been cultivated by the Turks, how could all these things have happened? Why was not so useful a grain introduced into Europe before, or why did it spread so rapidly when it was introduced? A somewhat extensive trade was carried on between Europe and some of the Asiatic isles long before the sixteenth century, so that if the Indian corn had been known or cultivated in Asia, there is every probability that it would have found its way into Europe. The plant called SORGHUM was known and cultivated in Europe, and somewhat in Asia and Africa, and this it was with which maize was so often confounded. This, however, was not a species of Indian corn.

But the strongest evidence of its American origin, is, it seems to us, that it has been found growing wild in some parts of the western continent‡, which is not the case in any other part of the world. This alone would seem to prove it to be indigenous to America. We need say nothing of the fact that grains of Indian corn have been found in the mounds of Peru. These mounds were probably built three or four hundred years before the conquest. There can be no doubt, therefore, that it was cultivated on this continent from time immemorial.

But it may now be asked, how are we to explain the numerous allusions to a grain, which if not Indian corn, must have nearly resembled it? We have already remarked that many of the assertions of the early botanists confounded maize with sorghum. Other allusions, and those by the sacred writers, refer to wheat, which was indigenous to Asia, and almost universally cultivated. Mr. St. John admits§ that there was, and still is, in that part of the world, "a very large grained wheat called camel's tooth," which would naturally have given rise

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*De Orbe Novo decades, III. 1516.

†Alonzo de Ercilla, Araucana. Madrid: 1577.

*Historia d'un voyage fait en la terre du Bresil, 1722.

†Della Monarquia Indiana, Tom. I. p. 166.

‡A variety has been found in Paraguay, which the Indians say grows wild in the woods.

§History of the manners and customs of ancient Gree Tom. III. p. 407.

to the expression "ears of corn," so ofted used. The misconception of Mr. Cobbett and others in regard to these references, arise from the ignorance of the ancient mode of sowing wheat, or corn as it was universally called by the old writers. Large fields of it were sown, between which a narrow road or patch, was left for the public. This road was just wide enough for the carriage to pass without injury to the grain, there being no fences for protection, so that it might be literally called "going through the corn fields.' It was sometimes gathered with the sickle, sometimes by passing through it and plucking off the heads or ears, the reaper having an apron or pouch to drop them into.

Neither wheat or rice were known to the first inhabitants of America, and we may with as much truth say that Indian corn and the potato were neither cultivated in Asia nor the South Sea islands.

It is well known that maize was introduced into Japan by the Chinese.‡ But there are no grounds for believing that the Chinese themselves possessed it until the sixteenth century. We persist then, with Humboldt, in believing that maize was not transported from the centre of Asia to the table lands of Mexico. And, moreover, if we suppose that it was thus transported from Asia, how are we to account for the infinite varieties found in America, which most certainly, were not found in Asia? Is it not more natural to suppose it to have originated where every variety of it was found, than where only one or two varieties, and those doubtful ones were ever known to grow before the discovery of America by the Europeans? We may remark, also, that if we suppose that a species of maize was actually known in Central Asia, or to the Chinese, it may have been the case that the Indians of the extreme N. W. of America had communication with the extreme N. E. of Asia, and that some one or two species, by this means, found their way into Asia. If such communication existed, which we do not believe, the fact that it was found in China and about the Himalaya, which is by no means established, would not prove it to be indigenous to Asia. Or, if one or two species were actually found, the fact that there were no more in Asia and so many in America, would be a strong evidence of its being exotic to Asia.

This accumulative evidence seems to us to be satisfactory and conclusive. It was the custom among some of the early writers, to speak of America as being sterile and wanting in the most important vegetable productions. They little suspected the surpassing richness of the country which had been made known to atonished Europe. The infinite variety of plants indigenous to Mexico, to Central and to South America, where we suppose maize to have originated is beyond description. No country on the globe can excel them in the boundless luxuriance of native, indigenous plants. Here even the giant trees of the forest are loaded with flowers of every hue and variety. The purple, the blue, and the scarlet, the brilliant yellow and the white, twine and mingle with every variety of green. Here are the fig, the sugar-cane, the indigo, the aloe, and the pepper plants, the passifloreæ, the pine-apple, and the endless variety of cactus with its splendid and variegated blossoms. Here is the night-flowering cereus, the alspice myrtle, the clove, the nutmeg, mango, guava, and an infine variety of palms, rising often to the height of two hundred feet. Here, too, are forests of logwood and mahogany, of collossal grandeur, often surrounded with shrubbery and parasitic plants, with a foliage so dense that the rays of the sun can never penetrate. Here is the mimosa, majestic in its size, the beautiful acacia, and grasses that rise to the height of forty and fifty feet, with tree ferns and reeds without number, often seen a hundred feet high. The golden and rose-colored bignonias add their grace and beauty to the teeming masses of blooming life. The laurels become splendid forests. Plantains grow to gigantic size, and beneath all spring lillies and bulbous plants, as if not an inch of soil could be spared. Here, also, the endless variety of creeping plants rise through the twining limbs with their myriad and brilliant flowers. Thousands of species still remain undescribed, and there may be thick and tangled forests which the foot of civilized man has never trodden. Nor is this rich luxuriance for a season alone —for the spring, or the summer, or the autumn. It is everlasting. The unfading verdue hides the very appearance of death. The trunks of the decayed, matted and heaped together, form only rich beds for the living to spring forth in the newness of life. The eye is sated with beauty. The air is filled with perfumes, and one is lost in wonder and amazement at nature herself. This is the native country of maize. A country unparalleled in the magnificence of its flora, and unequalled in the depth and richness of its soil!

The importance and value of Indian corn are too well known to every practical agriculturist to need illustration. Upon this part of our subject we shall dwell but briefly. On every part of the land where the hand of civilization has broken the turf, this beautiful grain receives a large share of attention. In the western continent it is raised from Canada to Patagonia, and the Islands of the South Sea, through almost every variety of climate and people, and over an extent, from north to south, of more than seven thousand miles. It was introduced into Africa by the Portuguese in the sixteenth century, and is cultivated more or less from

*Thunberg, Flora Japonica, p. 37.

the Mediterranean Sea and Libyan Dessert to the Cape of Good Hope. In Java and the Asiactic isles, it forms an important product. In Central Asia, it is known and valued, as well as in Australia and the Islands of the Indian Ocean. In Europe, it is extensively produced, in Hungary, in Lombardy, in France and Spain, and we might almost say from the Ural chain to the Atlantic. No grain can secure such favor from all parts of the world, except from its intrinsic value. No other grain, in fact, except rice, is so extensively cultivated.

Its flexibilty of organization makes it very easy of adaptation to climate and soil. Though it prefers moist and rich soils, with strong heats, there are varieties of it which can be raised in tropical climates at the height of more than nine thousand feet above the level of the sea. The warmest regions of the torrid zone produce maize in abundance, where three crops can be taken in a season, while the short summers of Canada have a variety adapted to them. This cannot be said of rice, which requires great heats, and cannot endure a climate of high lattitude. It is proper here to notice briefly the more important varieties of Indian corn. There is one common in Hungary, which M. Parmentier endeavored to introduce into France. It ripens in two months. A still more remarkable kind is mentioned by Eviedo* as being cultivated on the shores of the South Sea, which ripens in less than forty days. There are to be found in Spain alone no less than one hundred and thirty different varieties. The varieties most common and valued here, are the yellow, the red, which differ from it only in color, the sweet corn which is perhaps the most important, the Canada corn, known best in Maine and Canada from its early ripening. Its yield is thought to be equal to the larger varieties. Seventy-five bushels of it to the acre have been raised at Nahant, as exposed a place, doubless, as any in the country. The Egyptian corn has been preferred by some, while Cobbetts has the preference with others. These varieties have been tried together in the same field, and the Egyptian found to be the earliest, and the Quarantine or Cobbett's, next.

There is also a variety called Valparaiso, sometimes called Oregon corn, which, when roasted, splits in the form of a cross. A species called Tunicate, is found in Paraguay and in some parts of Oregon. Each kernel is covererd with a glume, or husk. Owing to the difficulty of separating the grain from the glumes, it is of little value. The Zea caragua is a corn found in Chili, said to be hardy and long-lived. Nuttall describes a variety called early Mandan corn cultivated by the Aborigines about the Missouri. It ripens in a climate where no other variety can exist. Other varieties might be described, but it is sufficient to say that they probably all sprung from the common yellow, and that they differ from each other only in the color, form and size of the grains, and in the time of maturity.

Indian corn ripens at the time when most other grains have been harvested. It therefore gives employment when there would naturally be little else to do. But what gives to Indian its great importance is the actual amount of nutritive matter which it contains. It is said to be third in this respect, wheat and rice containing a somewhat greater amount, though many place maize second only to wheat. We have the analysis of the ash of Indian corn, which may be given as follows:

Silica	38.45
Potassa	19.51
Phos. of lime	17.17
Phos. of magnesia	13.83
Phos. of potassa	2.24
Carbonate of lime	2.50
Carbonate of magnesia	2.16
Sulphate of lime and magnesia	79
Silica, mechanically found	1.70
Alumina and loss*	1.65
	100.00

A glance will show how greatly the fat forming principles predominate in the one hundred parts. There is hardly any grain which yields so much for the support of animal life. The difficulties and contingencies of raising wheat in the eastern part of Massachusetts have discouraged its cultivation, so that we may say that Indian corn is by far the most profitable crop, especially, as when the offal is properly managed there is no grain which restores so much to the ground. It is a fact, too, that it may be cultivated longer in succession than any other grain; and if kept dry, it may be preserved for an indefinite period without injury. The ease and rapidity with which it recovers from a drought is truly remarkable. Many predicted during the last summer that the corn crop would be destroyed. The leaves were badly curled, and there was every indication that the crop would greatly suffer. Every one remembers how speedy was its recovery, and how rapid its growth after the change of the weather. As a fattener for cattle, swine, and poultry, we may say that Indian corn is unravalled in utility. The analysis of Dr. Dana, as given above, is sufficient to show, at once, how important it is for such purposes. As a food for man it is extensively used, though by some thought to be too stimulating.

The most common mode of cultivating, is to plant in hills about four feet apart. But our

*Lib. II v., c. I., p. 103.

*For complete analysis, made by J. H. Salisbury, see Trans. N. Y. S. Ag. Soc., 1848, p. 796-7.

impression is, that where the largest crops have been obtained, the seed has been sown is rows or drills. In either case, it is now pretty well settled among farmers, that it should not be hilled, as was the custom a few years since. There seems to be several reasons for this. If the earth is drawn up around the stalk at the last hoeing it sends out new roots, which divert much of the nourishment which would otherwise have gone into the stalk and the ear. It is not unfrequently the case that AERIAL roots, even, are emitted from the lower joints of the stems above ground, and descending, fix themselves in the soil. This takes place on a very much larger scale, if these joints are surrounded with earth. If the earth is taken from the intermediate spaces, so as to leave hollows, the long branching roots become exposed to the sun, and cause the plant to feel the drought too severely. Kelp, which washes up in winrows upon the sea-shore, has been found to be of valuable assistance to maize. It should be equally spread over the ground and plowed in.

But it was not our design to allude to the modes of production. Every practical farmer is already familiar with these from experience, to say nothing of the easy access to our well conducted agricultural journals, which keep up with every new improvement in all departments of husbandry. If we succeeded in throwing some light and interest over the history of this valuable grain, our aims are accomplished.

In conclusion, we would say, that if America has furnished the Old World with maize, the potato, tobacco, cocoa, vanilla, and other plants useful to man, she is herself indebted to the eastern continent for wheat, barley, oats and rice, for the coffee plant, now one of her staple products, for oranges, lemons, peaches, and many other plants which now grow in great luxuriance both in the tropics and in our temperate climates. These plants Europe has been receiving for more than twenty centuries, from the Greeks and Romans, and from the nations of the east, till they had accumulated in rich profusion upon her western shores. Now many of them, together with many of our own, are borne on to the islands of the South Sea, still further west, whither the restless march of civilization is tending. The natural gifts of one country to another, facilitated by commerce and arts, are fast binding together the remotest corners of the globe. Let the full tide of civilization roll on. Let commerce bear to every land, and to every island in the sea, products which shall humanize mankind, and increase the aggregate of comfort and happiness! These are fruits of peace!

One-third of the people of the United States live in cities and towns, of which there are no less than sixty-five that contain over ten thousand inhabitants.

The Problem for a Republic.

The great Industrial Exhibition at London, which has just closed, has elicited many good speeches and original thoughts on both sides of the water. Its one leading aspect has not, however, been seized by any one so significantly as by Mr. WINTHROP—a statesman always most completely American, and always broad and comprehensive in his views—in his late speech at Faneuil Hall, before the Mechanic's Association. The following extract will awaken thought in the minds of all republicans—*Horticulturist.*

"But let me ask, sir, who of us is sorry that we are behind, far behind, the Old World, in articles of mere taste and ornament? Who does not rejoice that we cannot vie with Europe and Asia, in arts that minister only to the lust of the eye and the pride of life? Who is in haste to see the day, when the tissues and tapestries, the jewels and porcelain of India or France, shall be native to our own land? Who, on the contrary, does not desire that such a consummation may be postponed, until that double problem shall be solved, of which the history of mankind as yet affords no solution,—first, how these sumptuous and gorgeous decorations of the rich can be fabricated without the degredation and debasement of the poor;—and second, how the morality and purity, which are the very vital air of republican liberty, can withstand the fascinations and blandishments of a corrupting and cankering luxury?

And this leads me to say, Mr. President, in a single concluding sentence, that there is at least one element wanting in that great exhibition, for the purpose of any just comparison between our own and other countries. We see there the products—but we do not see the producers. We see there the fabrics—but we do not see the hands that made them.

Sir, if it had been possible to exhibit, in any tangible shape, or by any personal representation, the real condition of the artisans and mechanics of the world; if the makers of every article could have been standing by their work, with their ordinary dresses on their back, with their ordinary food at their side, and with all the advantages or disadvantages of their relative condition fully developed or displayed—their intelligence, their education, their wages, the amount of individual comfort, independence and happiness they enjoy,—the whole moral, social, and political position which they occupy,—what contrasts would not have been witnessed! If this very hall, with all that it now contains, could be wafted over the waters by a wish, on some magic carpet like that described in one of the tales of the Arabian Nights,—if it could be set down safely in that much talked of "vacant space" in the American section of the Crystal Palace; and if your excellent

President, now there, could be on the spot to meet you as you alight, and to say to the assembled throng of visitors: "Here are the American Mechanics—here are the men who build our ships, and our homes, and our bridges, and our railroads—who make our iron ware, and tin ware, and brass ware, and who construct those wonderful machines and invent those curious implements to which you have given your prizes—and here, too, are their wives and daughters—behold them, and compare them with your own"—would they not feel that it was something better than a vain-glorious boast, for us to exclaim:—

"Man is the nobler plant our realm supplies,
And souls are ripened in these northern skies!"

Weights and Measures.

The following table of the number of pounds of various articles to the bushel, may be of interest to our readers:

Of wheat, sixty pounds.
Of shelled corn, fifty-six pounds.
Of corn on the cob, seventy-five pounds.
Of rye, fifty-six pounds.
Of oats thirty-two pounds.
Of barley, forty-eight pounds.
Of middlings, forty-five pounds.
Of bran, twelve pounds.
Of shorts, eighteen pounds.
Of clover seed, sixty pounds.
Of hemp seed, forty-four pounds.
Of blue grass seed, fourteen pounds.
Of castor beans, forty-six pounds.
Of dried peaches, thirty-three pounds.
Of dried apples, twenty-five pounds.
Of onions, fifty-seven pounds.
Of salt, fifty pounds.
Of mineral coal, seventy pounds.

Bloody Milk.

I noticed in your paper of the 1st inst., an inquiry for a remedy for "bloody milk." It is not an uncommon disease, and is not difficult to remedy. My plan is as follows:—Take three or four pieces of the dried root of "garget," as it is commonly called; pulverize it and mix with a quart or two of bran or Indian meal, and give it to the cow. If she has been used to messing, she will eat it readily. Administer the like mess to her every fourth or fifth day, till the symptoms disappear, which will be the case in two weeks or less. If you cannot procure the root in a dry state, dig up the green root and cut it into pieces about four or five inches in length, and with a piece of thread confine it to the root. Cram it into the cow's mouth and hold her with her nose elevated till she chews and swallows it. In its green state it requires about double what would be required when dry. It is an infallible cure for almost every disease of the glands of either horned cattle or horses.

The same remedy, if seasonably applied to horses which have been afflicted with what is commonly called the horse-ail, having the glands about the throat tuntefied in consequence of a want of suppuration, would save hundreds of horses yearly from that fatal disease called the glanders. I have watched the favorable effects of that valuable root upon the diseased glands of cows, oxen and horses, with the highest gratification, for more than half a century. —*N. E. Farmer.*

Lime White-wash Colored.—A beautiful tinge may be given to lime white-wash, in a very cheap way, by means of copperas. Put a solution of half an ounce of copperas or sulphate of iron, according to the strength of color that is wanted in a gallon of the mixed fluid ready for the brush. This will give a light saffron color to the wash, which, for out-door walls or fences, is very tasteful, and the durability of the wash is not impaired. Try it.—*Western Agriculturist.*

The Farmer's Song.

BY CHARLES H. GRANGER.

Softly as falls the evening dew,
So falleth on earth the full bounty of heav'n,
Blessings of God forever new,
Unceasingly sent and freely giv'n.
Work, farmers, work; for the time flies fast,
The Spring-time is come, and the winter's past.
The Spring-time, &c.

Keenly the plowshare cleaves the soil;
And as the brown earth now invites the warm sun,
Bright are our hopes 'mid all our toil,
And sweet is our rest when labor's done.
Work, farmer's, work; for time flies fast,
The Summer is near and the Spring's soon past.

Tenderly springs the verdant blade,
While gently the raindrops decend from above;
Nature in beauty all array'd,
Now speaketh to man of peace and love.
Work, farmers, work; for time flies fast,
The Summer is come, and Spring-time's past.

Now in full splendor waves the grain;
And hillside and valley with harmony rare,
Joyfully sings to mount and plain,
And fill with their notes the balmy air,
Work, farmers, work; for time flies fast,
The Autumn is come, and the Summer's past.

Bowing beneath their freight of gold,
The trees invitingly bend to the ground;
While with their treasures all untold,
The fields in luxuriance spread around.
Work, farmers, work; for time flies fast,
Cold Winter is near, and Summer's past,

Imagine thus the life of man,
The season revolves in their beautiful train.
Hail to the great mysterious plan!
Decay only brings new life again.
Work, farmers, work; for time flies fast.
The season rolls on, and our life's soon past.

HORTICULTURE.

[From Mr. Little's Address before the Penobscot Horticultural Society.]

The Apple is a fruit of very ancient renown. It is not only noted, but it is the most useful of fruits. Poets have sung its praise. King Solomon in his noted poem speaks of it as follows, viz: he makes the Queen say, "As the apple tree among the trees of the wood, so is my beloved among the sons. I sat down under his shadow with delight, and his fruit was sweet to my taste." Again he says, "Stay me with flagons, comfort me with apples." It is grown in all the temperate climates of the world. Its value is greatly enhanced by its long keeping qualities. When the cultivator plants trees of varieties that will ripen in succession, he has this fruit in perfection the whole year. It is not only valuable for the dessert, but for culinary purposes even in the dried state.

"Our apples as we now have them, were brought to their present state of perfection by the repeated re-production from seed of a species of crab which grows wild in most parts of Europe, and by cultivation. The improvement in them is truly wonderful. The crab is also a native of Virginia and many other of the United States. It is also found in Oregon.

There is also the dwarf or paradise apple, which we use for stocks for dwarfing our common apples for our gardens.

The Pear is a very ancient fruit. It was a common fruit in Syria, Egypt and Greece. It was cultivated by the Romans in the early part of their history. Our Autumn Bergamot it is supposed was carried to England in the reign of Julius Cæsar. The Tiberian Pear was named for the Roman Emperor Tiberias. The poet Virgil speaks of them. Pliny in his 15th book describes the varieties in cultivation in his time as very numerous.

They were then not good flavored, and were mostly used for culinary purposes. He speaks of pears as having a heavy meat unless they are well boiled or baked. In Europe, Western Asia and China it grows wild, and in a wild state it is the hardiest of fruit trees. By the science, skill and perseverance of horticulturists the pear has been improved by reproductions from seed, mixing of pollens and by good cultivation, till we now have varieties of the highest flavor; instead of being austere they are melting and delicious, equalling any other in the fruit catalogue.

The Plum is a native of Asia. They have been imported from that country to various countries in Europe and to the United States. Most of our plum trees are from the Asiatic origin, but not the fruit. The plum is also a native of this continent. Among the varieties that grow wild through North America is one common among us called the Canada plum. It is used by many for plum stocks, as grafts on this stock are hardy and bear bountifully. The objection to this stock is, that grafts in the line of Asiatic parentage outgrow the stock as the pear outgrows the thorn or mountain ash.

Another native variety is called the beach plum. Great quantities of these grow on "Plum Island" near Newburyport, and in other places near the sea-shore. It thrives in sandy locations like Cape Cod, and for that reason is called the sand plum.

Many of our Bangor citizens have in early life visited Plum Island with parties to feed on these plums. At that time the excursion was lotted on as much as we now should to visit Niagara Falls. Another native is the Chickasaw or Dwarf Plum. The trees grow from 12 to 15 feet high usually, but when they grow on the prairies of Arkansas or Texas, they grow only about 4 feet high. The tree is quite ornamental. The fruit is small, of a red color, and of a pleasant sub-acid flavor. Our soil and climate are well suited to the growing of plums, and many have originated in the United States rivaling successfully those of any country in the world, and one of which originated in Bangor, equalling any other that can be produced in flavor and desirable qualities.

Cherries are natives of Asia also. In the year 69 B. C., the Roman General Lucullus brought this fruit from the city of Cerasus in Pontus and disseminated it in Italy. They were afterwards disseminated by the Romans into Germany and all the several countries they conquered. In some parts of Europe it is an interesting fact that the people are commanded by the government to plant cherry trees on either side of the public roads for ornament, and also that travelers may be allowed to cut off as much of the fruit as they choose except only of such trees as are marked for the owner's family use. If a person should take fruit from a marked tree he would not only be considered very base, but be treated as a thief.

Mr. Pell, of New York, who has traveled in Europe, states that in Germany there are avenues of cherry trees 70 miles long, planted on either side of the public thoroughfares—that in Switzerland you meet with them in every direction. Mr. Loudon also states that in the autumn of 1828 he travelled for several days through one almost continuous avenue of cherry trees from Strasburg by a circuitous route to Munich. The noble act of giving refreshing fruits and affording at the same time shade and ornament to the traveller by the government and people of Germany and Switzerland

is well worthy of imitation and to be recorded in history to their honor.

The Peach is a native of Persia. In the reign of Emperor Claudius it was brought to Rome. It was not carried to England till about the year 1550, and to America in 1580. They are raised in great perfection in Pekin, China, where they grow as large as apples. In our country they generally do not thrive north of lattitude 43 deg. Yet, says Mr. Pell, there are more peaches cultivated in the United States than in all other parts of the World. In the State of Delaware there are peach orchards containing each 100,000 trees. In New Jersey and Maryland it is quite common to see orchards containing each from 20 to 30,000 trees. They show fruit in three years from the stone and in two years from the bud. The peach trees are valuable for stocks for plums. Plum tree on the peach is very hardy and bears bountifully.

The Grape is a very ancient and much admired fruit. It has been cultivated from the earliest ages down to the present time. It is supposed to be a native of Persia. From the frequent reference to the vineyards, to the vine and to the grape, in the pages of scripture from Genesis to Revelations, it must have been extensively cultivated. For in the 1st of Kings, 4th: 35th, we read as follows: "And Judah and Israel dwelt safely, every man under his vine, and under his fig tree, from Dan to Beersheba, all the days of Solomon." During the 40 years of Solomon's reign there is frequent mention of the apple, the fig, the fig trees, the grape and the vines. We therefore may safely conclude, that this wise king was a noted horticulturist.

The grape vine lives to a great age. Pliny gives an account of one over 600 years old. It is a prodigious bearer, and therefore yields great profit to the cultivator. On the banks of the Ohio river there are vines measuring 3 feet in circumference, with branches 250 feet long.

In the Book of Numbers, 13th: 26th, we read, "They came unto the brook Eschol and cut down from thence a branch with one cluster of grapes, and they bare it between the two upon a staff." Query—if it required two men to carry one cluster how heavy was it?

The grape in all ages has been considered the symbol of happiness and type of abundance.

The white sweet water and black cluster grapes are cultivated with success in open culture at Montreal and other places in Canada, and these and various native varieties are found in all parts of the States of New Hampshire and Vermont. From these facts we may have good reason to believe the same varieties would thrive in Maine.

Among the smaller fruits are the Gooseberry, the Currant, the Raspberry, and the Strawberry.

They are all natives of England and most of them of this country. Some variety of the currant is found in every garden.

By cultivation and reproduction, gooseberries in Lancashire, England, have been produced of enormous size and of first rate quality.

The strawberry is extensively cultivated, especially near great cities, where enormous quantities are annually sold at high prices, yielding large profits to the cultivators. With cream or as a preserve, they are surpassingly delicious.

Here let me say that all persons having gardens should understand the art of grafting or budding. An apprenticeship of ten miuutes only is all the time neccessary to obtain the art. But should ladies understand the art also? I answer without hesitation—yes.

Should a lady having the art of budding visit a friend who possesses a very choice rose or other valuable plant, that friend would doubtless give or sell her a bud or two of it. She could then carry that bud home and insert it in a plant of her own. This might save her the expense of one dollar. She might multiply any choice plant or flower, and this employment would be one of the most rational of amusements. Any lady who is a florist would take much satisfaction in rearing a plant of her own budding.

Great quantities of apples are needed in families for culinary purposes, but in the months of June, July, and August, they are scarce and high-priced. Within comparatively a few years past a good substitute has been found for the supply of those months in the article of Rhubarb.

We will say something of the profits of fruit culture.

Professor Mapes has generously made a donation of two volumes of statistics of horticulture and agriculture of the State of New-York to this Society, embracing the reports of all the Horticultural Societies in that State. By these reports it appears that large quantities of fruit and more particularly apples, are annually exported to England where they readily sell at very high paices,—that the best orchards yield an annual income of over one hundred dollars the acre. [See "Transactions," page 585, for Wayne County Report, by its President, A. G. Percy.]

The Counties of Westchester, Orange, Wayne Rockland, Dutchess, Monroe, Ontario and Livingston are among the best fruit districts of the Empire State, not only for good quality, but its enormous quantity. In 1848 the County of Rockland alone exported one hundred thousand barrels of apples, as appears by the report of the Agricultural Society, duly signed by its President. It is said the Newtown Pippin Apples sell in London at $10 the bbl.

From the Family Visitor.

Premature decay of the Peach Tree.

BY PROF. J. P. KIRTLAND.

Fifty years since the peach grew vigorously, and almost spontaneously in many sections of New England where the soil and climate were congenial. In more recent times it has flourished with equal vigor in many parts of the Western country, particularly the State of Ohio. It has required no special power of observation to discover that it has been gradually lossing its healthfulness, till at length it cannot be cultivated without extra care. The progress of this diseased condition has evidently advanced farther in the Eastern States that in the newer and more fertile regions of the West.

A knowledge of the pathology of a disease, whether in the animal or vegetable kingdom, often leads to the discovery of successful means of cure. With this view attention has been directed to the nature and causes of this disorder. So far as they have been discovered, they seem to be dependent on the following, to wit:

1st. *The depredations of the Ægeria exitiosa, or Borer.*

The first stage of impairment was probably established by the attacks of this insect. It was known as early, or before the commencement of the present century; yet it was then met with in limited numbers, and its depredations hardly attracted attention. At this time it has become so numerous that every peach tree is annually assailed by from half a dozen to a dozen individuals in the larvæ state. They perforate the crown of the roots, and excavate it so extensively as to nearly cut off all communication with the body. Before the injury they inflict in one year is corrected by the growth of the ensuing season, a second generation renews the attack. The tree finally sinks under repeated injuries, or perhaps spins out a sickly existence for a few years.

2d. *Exhaustion of the Soil.*

No species of tree, shrub, or vegetable can attain health, vigor, and productiveness without a requisite supply of inorganic elements in the soil. Few soils originally contain supplies sufficient to sustain a successive growth of the same species of trees in the same locality. When a forest is suddenly removed its place is sure to be occupied by a different growth of timber, and an attempt at cultivating the same kind of crop upon the same field repeatedly, is sure to be met with manifestations of exhaustion, in the form of disease and unproductivness. Such evidences are too common with the peach tree when it is planted on soils exhausted of the essential elements. The doctrine is not, perhaps, exploded, that the excretions of vegetables exert an unfavorable influence on a succeeding crop of a similar kind. If it be correct, it may aid in throwing light on the nature and causes of the decay of the peach tree.

3d. *The curl of the leaf.*

Of late years, the first developed leaves in the Spring season become diseased with a spongy and malignant growth, which, in a few days time, occasions them to fall. This occurs at a period when the vigorous circulation of the sap requires a corresponding action in those important organs. A second growth is soon forced out, which ultimately restores the tree apparently to its wonted health and vigor. It is, however, evident that though the recuperative powers of nature may, for once, twice, or thrice, restore a growth of leaves, the shock must at length impair the vitality and induce an unhealthy condition. This curl of the leaf is produced by the punctures of a small plant-louse, perhaps the *Aphis persica*, or its analogue. It is described by Dr. Harris, in his Treatise on Destructive Insects; also in Kollar's work, to which the reader is referred.

People, judging of the size of this insect from the extent of its injurious impressions, might overlook it, expecting to find a huge monster where a mite exists, or very likely by searching for it long after its day and generation had passed away.

4th. *The Yellows.*

It is questionable whether any distinct disease occurs to which this name is applicable. Perhaps it s only a collection of symptoms arising from causes previously noticed—acting either individually or collectively. Facts seem to favor this view—though the insight of popular opinion is in favor of its being a *specific* or *contagious* disease.

In estimating the power and extent of the operation of these causes, it should be recollected that an injurious impression acting constantly upon successive generations, of either animal or vegetable species, may ultimately establish an hereditary entailment that may be propagated in the form of predisposition to disease, or disease itself. The converse is equally true in producing health or physical development. These several causes have been exerting their influence on the peach tree for a long term of years, imparing the stamina and health of its fruit-germs. These impressions have been propagated and re-propagated, in conjunction with the action of the primary acuses of impairment, till at length we have only a sickly progeny.

If this view be correct, we have two indications to fulfil in working a cure.

First. To withdraw or counteract the primary causes of impairment.

Second. To propagate only from healthy pits.

Let us begin with, perhaps, the main cause:

the *Ægeria*, or *Borer*. This depredator can easily be assailed with success by preventing the deposition of the egg in the crown of the root, or by the destruction of the larva after it is hatched. Embankments of earth, lime, ashes, tobacco, &c., have been tried for these purposes, with not very perfect success. During a late tour to the Eastern States I had an opportunity of seeing the results of the use of a remedy devised by E. M. Pomeroy, Esq, of Wallingford, Conn. He seems to have found an application which is sure to prevent the perfect insect from laying her eggs in the crown of the roots—the only point at which it can exist and do injury—and is equally certain to destroy the larvæ, which may have already commenced their career of destruction. The cost and labor of its use are very trifling. Further trials are necessary to test its certainty. As the discoverer has laid his claims before the Commissioner of Patents at Washington, I shall say nothing more in regard to it—only expressing the belief that it will prove successful.

The *second* cause, exhaustion of the soil, must be corrected by the aid of agricultural chemistry. Lime, ashes, bonedust, salt, barn and poultry manure, &c., empirically applied, will generally correct the evil. No tree pays better for high feeding that the peach, on a silicious soil.

The *third cause, the Aphis*, seems to be beyond control, where it exists in large orchards. It may be destroyed on a few trees by whale-oil, soap-suds, and tobacco water. The *fourth cause, the Yellows*, I must leave for the investigations and management of those among whom it occurs. Fortunately little is known of it in Ohio. For the purpose of propagating healthy stocks, pits of the peach should be obtained from sections of the country where this diseased condition does not prevail.

From the Columbus Enquirer.

Fall and Winter Manuring.

Frequent complaints are made by those who are limited in their gardening operations that whatever manures they do apply to their gardens, burn up their crops when the heat of summer comes on. We have felt this inconvenience too, and in looking around to find a remedy, have come to the conclusion that whenever a garden requires active stimulating manures, they should be applied in the fall or winter; in this way rank stable manure may be applied, and spaded or plowed under immediately. It will have become by spring the proper food for plants, and as all manures leach upwards, the surface soil will be in fine condition for the growth of vegetables; whereas if the manure is applied at planting time, especially the crude manures generally applied here, just as vegetables are most required, they are fired by action of the sun on the manure, and the gardener has the mortification to find his labor and money thrown away. Whatever manures are applied in the spring should be well rotted, or of a cooling nature. There are many families that annually waste a barrel or two of leeched ashes, when had it been applied to the garden patch, they would have had "yearly yorks" as well as their neighbors.

The soap suds from the wash tub is a manure that may be applied with safety and with profit in the spring, and yet how few ever use them except to enrich the earth around their kitchens, and make loathsome mudholes, when perfumed flowers, luscious fruits and mammoth vegetables, might have been made by them. We do not yet properly appreciate the importance of a garden. The bearing it has upon the happiness and health of a family is plainly perceptible whenever we find a well conducted garden; how highly important, then, that we should understand the proper food of plants. He would certainly be a mad physician who would give his fevered patients stimulants to raise the fever higher and higher, until the vitality was consumed. So with the gardener, plants are frequently stimulated to death, for the want of proper cooling food. Our garden soils can scarcely be too rich, but it must be a richness retentive of moisture, and not as would be the case if the stable manure was applied in the spring, be a richness which burned every thing in contact with it. Ho, then, for your wagons and wheelbarrows, load them up, and cover your gardens quickly; plow them up, turn the manure under; and when the early seed time comes, you need not fear but a harvest will follow.

From the Rural New Yorker.

Black Currants.

The black English current is represented to have qualities that entitle it to extensive propagation. A kind of wine has been manufactured from it, which is celebrated for its medical properties. The Boston Medical Examiner, quoted by Fessenden says of this wine: "It has all the good properties of the best Port, without any of its heating or constipating effects. We name several instances, where in great debility and exhaustion, after protracted and severe fever and from other causes, nothing else could be thought of or taken with pleasure or advantage, in which this wine proved grateful to the palate, and most friendly to the stomach: in which, indeed, it was the principal means of conducting the patient to health and strength. Its exhibition has been attended with remarkable success in the early stages of cholera and dysentery; and again in the later stages of these

diseases, after the symptoms of inflamation or ferbile excitement had ceased. It has been strikingly remedial in the low stages of typhoid and bilious fever. We have not room to enumerate many other morbid affections, in which this wine has proved useful. In sore throat it has for many years, been considered almost a specific remedy."

These opinions are confirmed by other testimony. Kendrick, in his American Orchardist says: "From the black currant a jelly is made, of considerable medical efficacy; a wine is also made from them, which possesses far superior medical virtues to Port wine. The jelly has been highly recommended for disorders of the throat, and as a neccessary article in the stores of ships sailing to the East Indies. A liquor is prepared from the black currant which, Mr. Forsyth says, is possessed of great medicinal efficacy in obstinate coughs, &c. The currants for this purpose are bruised and being placed in a jar, whiskey or any other species of alcohol is poured over them; the jar is then covered close for a fortnight; after this, the liquor is strained and bottled."

The jelly from the black current is farther described as being fine for the table, and the wine is of peculiar flavor, which to those accustomed to its use, is delectable.

A friend of ours, who for many years made use of this currant in his family, as a remedy for some of the above named affections, especially for diarrhœa, fully concurs in the foregoing estimate of its value. He considers it excellent as a preserve.

From the New England Farmer.

Remarks about Fruit Trees.

BY HENRY F. FRENCH.

A novelist, in one of his stories, portrays an old gentleman who set up for wit, upon one joke only, which he was careful to show off as entirely new, whenever he met a stranger, with the remark aside, "Well, I don't think I ever said that to *him* before." Perhaps they who have heard and read what I have said and written about apples and apple-trees, may find nothing particularly new in what may now be suggested, and may be inclined to liken me to that same old gentleman, but I can at least say, that however much of a hobby I have made of the subject, I have never published anything upon it in the New England Farmer.

And as my name is in print at the head of the columns, it may as well be understood, first as last, that I consider it my special mission among my agricultural friends to induce them to plant trees; shade trees of all kinds for ornament, and fruit trees for profit.

Although there are a few men in most New England towns, who know perhaps, all that can be learned, by reading, on these subjects, yet the greater part of those who plant fruit-trees, as was remarked in a recent number of the Farmer, plant and manage them so badly, that not one of three ever produces a crop of fruit.

This is partly because the best mode of culture is not understood, but oftener, perhaps, the result is a sort of reluctance, apparently natural to most men, to doing as well as they know how to do. Any man of common sense knows that a hill of corn planted in the turf of a grass field, would never grow, and it would seem manifest that a tenderly reared tree from a nursery, deprived of half its roots in transplanting, could bear adversity no better, yet nearly one-half of all the apple-trees in New England have been heretofore planted in grass land, and the ten thousand little mouths of the grass roots have drunk up the moisture and fertility of the soil, and left the trees to shrivel and die of thirst and starvation.

It is not absolutely necessary to keep the whole surface of a young orchard under cultivation.

For the first five years after an apple-tree from a nursery is set, the roots will find a sufficient space, if a strip eight feet wide, four on each side of the tree, be thoroughly worked and manured, leaving the remainder in grass.

Perhaps it may be better to cultivate the whole, but it is almost impracticable, upon ordinary farms, to keep any considerable extent of orchards constantly under the plow. I have, this autumn, prepared about three acres of land for planting with apple-trees next spring in a mode which seems new to those who have observed, and which it may be useful to owners of new land to know. A heavy growth, chiefly of white pine, was taken from the land three years ago. It was never burnt over, and white birch and other bushes had sprung up, so that it had a month ago as little the appearance of an orchard, as any tract in the State. Having cut the bushes, I staked the land out for the rows of trees, twenty-eight feet apart. Three men with hand tools, without cattle, in one week dug out nearly all the stumps and visible roots within four and a-half feet of the rows staked out. Then with three yoke of oxen, in three days the strips nine feet wide were plowed by back-furrowing more than a foot deep. Two men were required besides the driver and plowman to do this work, one with a sharp axe to cut off the roots which were found by the plows, and another to follow with hog-hoe to mend the broken furrows.

The land, being free from stone, is thus thoroughly worked in strips of nine feet wide one way, through the tract, leaving about two-thirds of it in the possession of the pine stumps, to be dealt with at some future day.

I am now having eight holes dug for the trees, *six feet* across and *eighteen inches* deep.

The soil thrown out is to be mixed with about three bushels of compost manure from my barn cellar, and half a peck of ashes to each tree, to lie in heaps until the time for setting the trees in the spring.

I mention the *manure* particularly, because an article has been recently published by high authority, objecting to the use of any manure in planting fruit trees.

Green manure should never be used about any trees; but compost which will not fermant, may be applied in the manner I have mentioned, with manifest advantage, as my own trees bear abundant testimony.

By planting the plowed strips of my new orchard with potatoes and corn, I think the trees will flourinsh as well for five years, as if the whole ground were worked. Then the whole should be cleared up and *subsoiled*, and the fruit will abundantly pay after that time for any reasonable expense of cultivation.

To show by facts, and not theories merely, the advantage of raising fruit, I will state what has been the value of a single orchard to which reference has before been made in the Farmer. Mr. Jefeph Robinson, of Chester, N. H., has an orchard of less than two acres, which produced a crop in 1847, for which he was offered six hundred dollars, on the trees; in 1849 a crop which sold for six hundred and eighty dollars; and this year he was offered $425 for the fruit on the trees, and declined the offer. His orchard has been in full bearing, and bids fair to last for a generation to come. His fruit has been sold in the neighboring markets from one to three dollars per barrel. From his own occount I am satisfied that the average nett income of that orchard for ten years past has been more than three hundred dollars a year—the interest of *five thousand dollars!*

A gentleman in Hampton, in this State, sold the fruit of about four acres of land, this season, for $800, and last year he recieved $1400 for the fruit of the same orchard.

Now if we were crediby informed that so profitable a business as this could be done in California, flocks of our young men would peril health and life even, to find the fiolden soil; but it is too matter-of-fact a business to remain and labor *at home*. It requires six or seven years for trees which we get from the nurseries to come into bearing and many of our *young* omn are to wait so long.

I recently mej a gentleman, who has one of the finest orchards in this vicinity. Said he, "I am more than seventy years old, but I have set over a hundred apple trees this fall." Mr. McClintock, of Portsmouth, who is now nine-four years of age, this year ate of the fruit of trees planted with his own hand when he was *eighty-six!*

And by-the-way, there is no doubt that a amnwho plants trees in his old age, lives the longer for doing it. An interest in the works of nature—which calls him to active exercise, and keeps up his sympathy with the pursuits of other men, prevents him from breaking down at once like the retired merchant or professional man, who dies prematurely for want of any thing else to do! As profitable investment for capital, there is nothing that now promises better for a half century in New England, than fruit raising. The cry of an over-supply has been kept up for fifty years already, and still the price of fruit has regularly increased. Mr. Robinson says that when he planted his orchard with seedling trees more than fifty years ago, his friends told him there could never be a demand for so much fruit.

Nobody doubts that just at this time, an orchard is of more value than land in any other use. The most obtuse intellect yields to a mathematical demonstration by simple addition but still the doubt is, whether there can be a demand for all that can be raised. This question was ably considered in a recent number of the Farmer, by one of the editors, and need not be here pursued. Let the subject of fruit be kept steadily before the public, in our agricultural jeurnals.

Many will read, and profit by what they read and many more will doubt and hesitate, and in future, years lament, as so many are now heard to do, that they had not begun in their younger days to plant trees.

The Illusions of a cup of Tea.

The tea-table, that charm of gossip and talk, the very cup itself which we are so often told "cheers but not inebriates," is not sacred from the invasions of compounders, and when we fancy we are sipping our souchong the probability is that we are drinking essence of beech, elm, horse-chesnut, plane, fancy oak, willow, poplar, hawthorn, or sloe-leaves, for of all these, in their turn, do we fill our caddies. In 1843 there were no less than eight manufactories in London, and as many in the orovinces; but the excise grew very active and put most of them down. The leaves were bought up at coffee houses at two and a haif pence per pound, mixed with a solution of gum, re-dried, and then colored with rose, pink and black lead to "face" them, a bloom being sometimes also imparted with a vegetable red mixed with carbonate of lime. But though there is not so much ingenuity now exercised in the home market, we are not a whit the safer, for the Chinaman, with his pigtaii, is just as great a rogue as his barbarian brother in England. Out of thirty-five samples ol black tea lately tested upon their arrival from China, twenty-three, consisting of congous and souchong, were genuine, while twelve, which consisted of scented caper, chulan, or black gunpowder, were aduiterated. This aduiter-

asion consisted in the leaves having been faced, so as to improve the appearance of the teas, with black lead, and an irridescent powder resembling mica, indigo, and tumeric. As for green tea, there is no such thing by nature, but plenty by art. Of thirty samples tried all were found to have been adulterated. Five consisting of what is called "lie" tea, which is simply tea dust and sand made up with rice water; one was composed of paddy husk and other substances; and one was a mixture of "lie" tea and spurious leaves of other plants. Every one of the thirty sorts was artificially glazed or colored. Prussian blue, indigy, tumeric powder, and China clay being the substances employed. In no instance among all these trials was a single leaf discovered possessed of a green color better than was produced by artificial means. No wonder people can't go to sleep after drinking green tea, as for "the nerves," it is strange how they stand it all.

From the New England Farmer.

Thanksgiving.

Another of these interesting anniversaries has just passed away; it has been a refreshing halting place in the hurry and confusion of life. We hope every individual sat down to a bountiful table, with a heart big with gratitude to a Great Provider for all;—remembering that it is HE who has continued our lives, given us joy and health, filled our garners with food, and preserved the social dispositions which have kept bright the chain of friendship, and united us in the bonds of affection and love;—That it is HE who has controlled the seasons and tempered them with His sun and wind and showers, and made them fruitful for us;—That HE has "sent the springs which run among the hills, into the valleys," filling them with beauty and with life, and "watered the hills from his chambers," till the "earth is satisfied with the fruit of his works."

THANKSGIVING! We trust there was a universal Hymn of it throughout the land—that the heart of each yearned towards his neighbor, and that the humble and the poor all had their meat in due season." ☞ If THOU wert not thankful then, be so NOW.

Cold winds pinch the unprotected, and colder neglect crushes the best affections of the heart. The poor ye have always with you. Go, then, and from thy bountiful store, give warmth and food to those who have No Harvest to gather; then will the voice of Thanksbe heard in their dwellings, and their "meditation of thee shall be sweet."

Cherish this institution. Tell yoru children how in stomy December our forefathers landed on "the stern and rock-bound coast"—how in the midst of privation and suffering they erected the Church and the School-House, and planted their principles in the New World. And although smitten with disease and more than decimated by death,—though reaping scantily where they had toiled and sowed in pain and in fear, yet how joyfully they gathered themselves together and uniting in anthems of Thanksgiving and Praise to HIM who had brought them in safety across the wild waste of waters, and given them "freedom to worship God."

Cherish this institution, then, in deep-felt gratitude, in hymns of Thanksgiving, and in affectionate remembrances of those who can be made happier by your kind act; then will it be handed down to furure generations, to make glad the family hearth and embalm the memory of the Pilgrim Fathers.

SYRIAN PLOW—A CURIOSITY.—One of the greatest curiosities at the State Fair, was a plow, yoke, and ox-goad, sent to this country from Mount Lebanon, sixty miles from Jerusalem, in the land of Syria, by Rev. Daniel M. Wilson, one of the missionaries of the American Board, and well known in Cincinnati. The implements are simple and rough, reminding one of the primitive ages, and were in striking contrast with the finished American specimens on exhibition. The Syrian plow-beam is composed of two round, crooked sticks, lapped and pinned together in the centre with wooden pins. On one end is a straight, single handle, the lower end inserted in the socket of the plow-share, which is over a foot in length, the iron in the lower end is round and brought to a point and widened out towards the top to eight or ten inches. The top of the handle has a short cross-peice. The yoke is made fast to the other end of the beam by a wooden ring, is nearly straight, and the bows are straight wooden pins a foot or so in length, which are tied together by a primitive looking cord passed under the neck of the ox. The whole establishment so weak and rickity that a Buckeye ox would rip it all to flinders at a jerk. The ox-goad is a stick like a short fish-pole, tipped with iron, chisel-shaped.—*Indiana Farmer.*

POULTRY DUNG.—Have this regularly swept up every Saturday, packed away in barrels, and sprinkled over with plaster. Dana with force and truth says: "The strongest of all manures is found in the droppings of the poultry yard." Next year each barrel of it will manure you half an acre of land; save it then, and add to the productive energies of your soil. Don't look upon it as too *trifling* a matter for your attention; but recollect that the globe itself is an *aggregation of small matters.*

BOY'S DEPARTMENT.

The Old Man.

No expression that we are acquainted with, grates so harshly upon our ears as that of "the old man," when it comes from the lips of a son speaking of his father. It is irreverent, and exhibits a lack of some kind of training of the child. The person who habitually uses the expression is either intimate with low characters, or he does not feel that respect and reverence due from a child to a parent.

In excuse, it is said, 'tis but a jest and means nothing. If so, it were better not to jest on such a subject, and use some expression that does mean something.

Old man is used as a term of reproach, a sort of by-word, and a bugaboo to scare bad children, and in a manner used expresses a sort of contempt or don't care.

There is several stages to be gone through before the old man is brought on. Pa, papa, and father have had their day, as the young swell lazily rolls his cigur or quid of tobacco in the corner of his mouth, strokes his goose down chin, and replies with a curl of his lip, to the gentleman by whom he is interrogated, "That's nobody but the old man."

Young chaps that visit oyster cellars, beer saloons, and fashionable wine shops, who can smoke a "regalia," or chew "ladies' twist," without making them sick, or walk a crack with three glasses of champaign—these are the sprigs who talk of "the old man," who don't know they're out.

We have also heard these same characters speak of their mothers as "the old woman." True it's no heinous offence, yet it shows as plainly as any other swagger, what company they keep, and the estimate they place upon their parent's love and care for so many years. *Nashville Christian Advocate.*

Woodpecker's Stores.

In stripping off the bark I observed it perforated with holes larger than those which a musket ball would make, spaced with a most accurate precision, as if bored under the guidance of a rule and compass, and many of them filled most neatly with acorns. Earlier in the season I remarked the holes in most all the softer timber, but, imagining they were caused by wood insects, I did not stop to inquire; but now, finding them studded with acorns firmly fixed in, which I knew could not have been driven there by the wind, I sought for an explanation, which was practically given me by Captain S———'s pointing out a flock of woodpeckers busily and noisily employed in the provident task of securing their winter's provisions. It appears that that sagacious bird is not all the time thriftlessly engaged "tapping the hollow beech tree," for the more idle purpose of empty sound, but spends its summer season in picking those holes, in which it lays it store of food for the winter, where the element can neither effect it or place it beyond their reach, and it is considered a sure omen that the snowy period is approaching when these birds commence stowing away their acorns, which otherwise might be covered by its fall.

I frequently paused from my chopping to watch them in my neighborhord, with the acorns in their bills, half clawing half flying round the tree, and admiring the adroitness with which they tried it at different holes until they found one of its exact calibre; when, inserting the pointed end, they tapped it home most artistically with their beaks, and flew down for another. But their natural instinct is even more remarkable in the choice of nuts, which you will invariably find sound; whereas it is a matter of impossibility, in selecting them for roasting, to pick up a batch that will not have half of them unfit for use, the most safe and polished looking very frequently containing a large grub generated within. Even the wily Indian, with all his craft and experience, is unable to arrive at any thing like an unerring selection, while in a large bag-full that we took from the bark of our log, there was no one containing the slightest germ of decay. They never encroach on their packed store until all on the surface are covered, when they resort to those in the bark, and peck them of their contents without removing the shell from the holes.—*Kelly's Excursion to California.*

Little Graves.—Sacred places for pure thoughts and holy meditations, are the little graves in the church yard. They are the depositories of the mother's sweetest joys—half unfolded buds of innocent humanity, nipped by the frost of time, yet ere a canker worm of pollution had nestled among its embryo petals. Callous, indeed must be the heart of him who can stand by the little grave side, and not have the holiest emotion of his soul awakened to thoughts of that purity and joy which belong alone to God and Heaven; for the mute preacher at his feet tells him of a life begun and a life ended, without a stain; and surely if this be vouchsafed to mortality, how much purer and holier must be the spiritual land, enlightened by the sun of infinite goodness, whence eminated the soul soujourner among us! How swells the heart of the parent, with mournful joy, while standing by the cold earth bed of lost little ones! Mournful, because a sweet treasure is taken away—joyful, because that jewel glitters in the diadem of the Redeemer. *Young People's Mirror.*

VALLEY FARMER,

ST. LOUIS, JANUARY, 1852.

EPHRAIM ABBOTT, Editor.

Editor's office and Printing office, Third street, corner Pine.

The Law of Newspapers.

1. Subscribers who do not give express notice to the contrary, are considered wishing to continue their subscriptions.

2. If subscribers order the discontinuance of their papers, the publisher may continue to send them till arrearages are paid.

3. If subscribers neglect or refuse to take their papers from the offices where they are directed, they are held responsible until they have ordered them discontinued and settle their bills.

4. If subscribers remove to other places without informing the publisher, and the paper is sent to the former direction, they are held responsible.

5. The courts have decided that refusing to take a paper or periodical from the office, or removing and leaving it uncalled for while in arrears to the publisher, is evidence of intentional fraud.

6. Any person who receives a paper and makes use of it, whether he has ordered it sent or not, is held in law to be a subscriber.

REMOVAL.

The Editor's office and Printing office of the Valley Farmer is removed to the building recently occupied by the St. Lonis Intelligencer, third floor, north-west corner Third and Pine streets, entrance on Third street.

It will be seen by an advertisement in this issue that we have completely refurnished our our office and are fully prepared to execute all kinds of printing; and we respectfully request such of our friends as reqnire any thing in this l ine to send us their orders, giving them the assurance that all work will be done under our own personal supervision, and at reasonable rates.

IOWA CHEESE.—We have recently received from one of our patrons in Iowa, Mr. A. ALLEN, Post master at Clay, Iowa, two cheese, each weighing about fifty pounds, which we pronounce equal to the best Western Reserve. We rejoice to learn from Mr. A.'s letter to us that this branch of domestic industry is receiving considerable attention in his neighborhood, and that the products of their dairies have brought fair remunerating prices. There is no earthly reason why as good butter and cheese should not be made in the upper Mississippi Valley as in Ohio and New York, and the day is not distant when large quantities of these commodities will be produced here for exportation.

☞We call the attention of our brethren of the craft to our new type, from the foundry of Messrs. A. P. LADEW & Co., of this city. These enterprising gentlemen have within a few years built up a large establishment here, giving employment to numerous workmen, and furnishing an assortment of all articles required in a printing office. Their new Scotch cut type, of various sizes is equal in delicacy and beauty to any cast in the United States.

NEW HEMP.—Captain Cleveland, of Hazel Ridge Farm, writes us as follows, under date of Dec. 18th: "I have a few tons of my hemp crop taken, and it cleans beautifully. Its color is fine, and its fibre good enough for the fall of a *diving bell*. I know of no other one in this county who has commenced on his hemp, and the only reason of mine being ready so soon is that it was permitted to take a rain or two when it was cut."

AGRICULTURAL COLLEGE IN ILLINOIS.—We perceive that Prof. Turner and other individuals in the northern part of Illinois are moving upon the subject of the establishment of an agricultural College in Illinois. This is right; only it seems to us the innitial movements in the cause of agricultural education, should be in the common school. But few, comparatively, of the youth of the land can avail themselves of the privileges which the best colleges offer, while the leaves of this tree of knowledge should be thrown on every breeze, and be, emphatically "knowledge for the million."

BONE MANURE AND BITUMENATED LIME.—We have promised some of our friends an article upon these fertilizers, and had intended it for this issue, but in consequence of the disarrangement of some papers in removing our office, we are compelled to omit it until next month.

☞Dean Swift says he never knew a man to rise to eminence who lay in bed of a morning; and Franklin says, "he who rises late, may trot all day and never overtake his business."

The Morning Signal.

This is the title of a new daily and weekly paper to be issued in this city, commencing on New Year's, by an association of young gentlemen, under the firm of Meadenald, Libby, Gonter, & Co. With one exception the association is composed of practical printers; and we have every confidence that their paper will obtain a wide circulation. Their material is all new, and judging from the appearance of the *outside* of their first paper, (of which we have had a glimpse,) its mechanical execution will be all that might be expected of such good printers as our young friends.

Valuable Medicines.—The attention of our readers is directed to the valuable medicines advertized by Dr. Easterly. Fever and Ague, Coughs, and Rheumatism are the prevailing maladies of the west, and any medicine which promises to cure either of them, presents strong claims to the patronage of the community. It will be seen that Dr. E. engages to *refund the money paid*, in case his medicines do not prove effectual. This speaks strongly for his confidence in their efficacy.

Farm Supplies.—Messrs. Plant & Salisbury, it will be seen are prepared for the new year's business with a full stock of all the requisites for the farmer. These gentlemen have done a large business during the last year, and have well merited the confidence and patronage of the public.

Our Exchanges.—We feel under great obligations to our brethren of the press throughout the west for the favorable and flattering notices that they have from time taken of the Valley Farmer, and shall endeavor to merit all the praise which has been bestowed upon us. They can put us under renewed obligations by noticing the improvements in our paper, and commending the *farmers' own paper* to the patronage of their readers.

Winter Exhibition of the N. Y. State Agricltural Society.—This Society will hold in Albany, on the 20th 21st and 22 days of January, inst. an exhibition of fat animals, dressed meats, seeds, dairy produce, fruits, &c. About $600 have been offered in premiums. In connection with the exhibition there will also be a voluantary display of live poultry of celebrated varieties.

The Mexican Mustang Liniment, is acquiring a world-wide reputation, and from our own experience of its virtues we are prepared to speak of it in very favorable terms. Probably no article in the healing line has so extensive a sale at the present time in the South and West as this, and we learn that the proprietors design opening in the spring an extensive establishment in New York city for the purpose of introducing it in the East. Success to them.

The Plow.—The *American Agriculturist*, which has been for ten years printed in New York by the Messrs. Allens has been changed to a fifty cent publication to be called "The Plow." The Allen, have retired from the editorial department, and are succeeded by Mr. Solon Robinson, a gentleman whose interesting articles in the agricultural papers for the last ten or twelve years, have made him well known all over the Union. We presume The Plow is intended chiefly as an advertising medium for Messrs. Allens and Saxton, but it will nevertheless be a very valuable publication, as we are told that A. B. Allen, and R. L. Allen, late editors of the Agriculturist will be regular contibutors, also Prof. Norton, Dr. Antisel. L. F. Allen. Such contributions in addition to the labors of the excellent editor, must make it a first rate publication. It is to be published by C. M. Saxton, 152 Fulton street, N. Y.

If any of our friends have a neighbor who does not take the Valley Farmer, will they, the next time they meet him, be so good as to hint that our paper is the largest and cheapest agricultural paper in the land, and the only one expressly devoted to the good cause in the Mississippi valley, and if he wishes to add to his stock of information, prosecute his business successfully, and do his family a favor, he will lose no time in making up a club or sending on his own subscription at once.

Indiana Farmer.—We have received No. 9. of this publication, printed at Richmond, Indiana. It is set up in good style, its editorials

and communications are good and its selections well made. Each number contains 16 octavo pages, and is published at $1 per annum, but we are not told how often it is issued, but we presume twice a month.

POTATO STARCH.—Like the potato itself this article is a gift from America to the Old World, and its discovery and manufacture is of more recent origin than perhaps most of readers are aware. In the "Genealogical Register of the descendants of George Abbott of Andover, Mass." we find an account of SAMUEL ABBOTT, son of ABIEL ABBOTT, of Wilton, N. H., who died Jan. 2, 1839, aged 59 years, *being burned in a starch factory.* "Having carefully investigated the properties of the potato, he was satisfied that the starch it contained, might be useful for food, and for manufacturing establishments. He invented the process of extracting and cleaning starch from potatos and in connexion with his brother Ezra Abbott, erected a mill in 1813 moved by horse power, which fully answered their expectations. Being encouraged by the Waltham Manufacturing Company, they put in operation in 1821, the first factory for making potato starch on a large scale."

SMALL POTATOES FOR PLANTING.—The reader will find on another page, an article from the *Miner's Express*, upon the subject of selecting and preserving the choicest seed for planting. However true the assertions in that article may be—and we believe in general they are very correct—it would seem that in regard to potatoes they are not so. We have noticed several experiments in different sections to test this matter, all of which have shown that small potatoes will produce just as large fruit as large ones. It would seem, indeed, to be contrary ta the usual order of things; but then *theories* now-a-days have to give place to *facts*, and if experiments satisfactorily disprove a cherished opinion we are bound to give it up.

"H. G." of West Greenfield, Saratoga Co., N. Y., writes to the Albany Cultivator, an account of four rows planted on the 19th of April, 1851, across his patch, side by side, land of equal quality and condition, two rows with very small potatoes, averaging in size from a walnut to a small butternut, putting two and three in a hill; and the other two rows with a common full size potato. During the season he could discover no difference in the appearance or size of the vines, and on the first of October he dug the whole, There was a fair yield of good sized potatoes from all, but he could disern no difference either in size, quality, or measure between the rows planted with small potatoes, and those planted with large ones.

A fresh trial of Hussey's Reaping Machine has taken place on the royal property at Windsor. The test was again so satisfactory that Prince Albert, who was present, ordered two machines—one for Windsor, and the other for Osborne.

SUGAR FROM INDIAN CORN.—A patent was granted in 1850 for making sugar out of corn meal, which is worthy of notice. Twenty-five bushels of corn meal are mixed with 150 gallons of water at a temperature of 175 deg., and to this is added, 25 lbs, of vitrol, to which after stiring well, 50 more gallons of water are added, and the whole run into the boiler, (a leaden one we presume,) when the contents are boiled by high pressure steam. The boiling is continued until, by the trial of a little iodine, with a portion of the mixture in a saucer it does not turn blue, which shows the operation to be complete. Chalk is then added to neutralize any of the free sulphuric acid, when the whole liquor above the sediment at the bottom, is run off and concentrated to chrystalize. This is one of the wonders of chemistry; sugar is now made of corn, by boiling it along with a most violent acid.—*Scientific American.*

CASTOR OIL FOR LIGHT.—The Jacksonville (Ill.) Journal says, it may not be generally known that castor oil is better for lamps than sperm or lard oil, which is the fact. Some years since, when this oil was cheaper than either of the others, the editors of that paper used it in their parlor lamps, much pleased with the result; it gives a white, clear, and beautiful light, and does not clog the wicks. It sells in Illinois at $1 per gallon.

Seed for Crops.

How often is it that we observe our farmers, during the winter season, and often immediately after the harvest, separating their grain and other produce for the purposes of seed, market and feed for their stock. Of their potatoes they will select the largest, for home consumption, the market or their cattle, and all the small ones, they will carefully preserve for seed. The reason they assign for this course is, that like will produce like, and if you plant potatoes, the yield will be potatoes, and there is no use to use the fine large ones up, when the small ones will do, and go a great deal farther in planting or cutting. This is a doctrine and a system of economy much in vogue amongst a certain class of farmers and who are never on an equality with the rest of their neighbors, either in point of yield or quality. The small potatoes are those which should be fed, and the largest ones should invariably be selected for seed. The adoption of this rule will always secure an abundance in yield and a great superiority in quality. So likewise with all classes of grain. For example, we would say to our farmers who are corn growers, that if they wish to improve the quality of their crops next year, do not fail this winter to select your best and fairest ears and lay them aside for seed. Moreover there is another very important considnration connected with this selection. It is the desire of all our agricultural readers to have as early crops of corn as possible, and especially so in our State, where at best our seasons are short. This is to be done more effectually in the selection of your corn for seed than by any other means. Select always the largest and fairest ears of that corn which ripens first, and in the second crop you will observe a very material, and often times, to the farmers, most important difference in the period of ripening. *It is a universal law of nature that* "like begets like." Well selected and early seed corn, will beget a well filled and early crop. For the sake of experiment it would be well for some of our readers to test this doctrine, and they will find that seed corn, almost without an exception, will produce a crop, which will ripen just about the same time that it ripened. Taking it for granted then, that such is the fact, it is a matter of some importance that, corn which ripened first, should by all means be set apart for seed; for the reason that if the later ears be selected, a late crop must necessarily follow, which, in the great majority of instances, results in the detriment of the farmer. There is a treatment too, due to seed corn which may not be generally understood, though much practiced in the Eastern and Middle States, and which is as follows, viz: The ears intended to be preserved for seed, should be gathered immediately upon their becoming thoroughly ripened, which period is ascertained by the husks turning white. They should be hung up or so placed as to enjoy a free circulation of air all winter, where they would be free from rats and mice.—*Miners Express.*

Milk.—The increase in the consumption of the article of milk, since the opening of our railroads, is one of the most remarkable results of their construction. It is probable that the quantity of milk now used in Boston and this city, is more than five times as great as it was before brought in from greater distances on the railroads; and the price is from one to three cents per quart less now than it was then. On the Fitchburg railroad alone, about three thousand gallons of milk are brought in each day by the cars, and distributed in this city and Boston, by some twenty men.—*Bunker Hill Aurora.*

Dr. O. S. Leavitt, of Maysville, Ky., is pushing on his great iavention, which is designed to manufacture linen from flax and hemp, fully as cheap as cotton goods of similar quality. Dr. Leavitt is the original discoverer of these processes; but he has received comparatively little notice from the American press, while the similar and later inventions of Chevalier Claussen have been subjects of extensive comment. It is a pity the Doctor was not born in England or France.—*Buchaan's Journal of Man.*

From the American Agriculturists.

Effect of Diet on Health and other matters.

[Interesting letter from the Shaker Society of Kentucky.]

Amite Co., Miss., Aug. 1851.

I enclose a letter received a few days since from Mr. Bennet, a member of the Shaker Society near Lexington, Ky. From statistics I have seen they average the longest lived of any people in the Union; they own as fine land, as fine stock as Kentucky can show; they are very wealthy, and the society in the south part of the state is also very wealthy. They seldom have any sickess, and never had a case of cholera, notwithstanding it was all around them. They have abandoned the flesh of hogs as food. If you should visit them you would be delighted with their village. They own the finest Durham cattle I ever beheld. What you find in this letter can be relied on.

E. J. Capel.

Pleasant Hill, Mercer Co., Ky., June, 1851.

Dear Friend:—Having, in comparison with the number of occupants, an abundance of land we are mainly employed in agricultural, horticultural, and other pursuits connected with the

cultivation of the soil, the rearing of stock, particularly cattle, sheep, horses for our own use, and a few hogs. Our stock of cattle is quite large, and consists in the main, of the thorough-bred improved shorthorn breeds. The shorthorns, in our opinion, are decidedly the best cattle ever introduced into this section of country, they are thrifty, well formed, grow large, come to maturity quick, and are unsurpassed in their milking properties. Some four or five of our thoroughbred cows are now giving daily from 60 to 66 lbs. of rich milk, making an average of eight gallons each. These, it is admitted, are rather exceptions; but a cow that does not give six gallons, (48 lbs.) per day, during four or five months first after calving, is generally considered here below the average. But climate and nutrition have their influence, and no doubt a race more diminitive and hardy is better adapted to your section.

DEVON CATTLE.—I saw your Devon bull, it is presumed, last winter at Bayou Sara, in the care of ———Clauss. He is a beautiful and well formed animal, and doubtless will do well in the south—much better with the same attention than a Durham bull would do.

SOUTH DOWN, COTSWOLD, AND FINE WOOLED SHEEP.—Your South Downs in company with the bull were beautiful. These sheep in the south, where mutton is the principal object, can be raised with more profit than any other kinds; but with us where wool is the leading incentive, they are considered very unprofitable—we have tried and discarded them. Our flocks consist of Saxony and fine wooled sheep, except the Bakewell and improved Cotswold, but these sheep are not numerous with us.

SWINE.—We have but few hogs and these are of the Buskshire breed, which we most approve, after trials of various other kinds.

In our habits and manner of living we are regular. We rise in the winter at five, and in the summer at half after four in the morning, and in the evening retire to rest at nine, or a little before, the year round. We breakfast in winter at half after six; dine at twelve and sup at six, during the year.

DIET.—As articles of diet we make no use of pork, foreign teas or coffees, simply because we believe them unwholsome; but deny ourselves no further of the good things of the table, found among the best livers in this country. There is this difference, however, between us and our neighboring good livers, that we make a freer use of milk and butter, pastries, fruits, all kinds of vegetable alimentary substances, and a more restricted use of meats, &c., than they do. Our meats are beef, mutton, poultry and fish—eggs we have, especially at one season of the year, in abundance. At our meals we have considerable variety in articles of diet, and these articles, except in a few instances, are continually changed, according to circumstances; so that it would be impossible, or nearly so, to give a perfect understanding of how we live in every minutia. But, generally, for breakfast we have two kinds of meat, cold light bread and warm biscuit, commonly in form of light rolls, milk, butter and cheese, domestic tea and coffee, Irish potatoes and other vegetable sauces, pies or pastry, &c. For dinner, two kinds of meat, soups, vegetables, cold light bread, warm corn bread, milk, butter and cheese, puddings, pies, &c. Supper, no meat, cold light bread, domestic tea and coffee, milk butter and cheese potatoes and vegetable sauces, pies, preserved fruits, &c. There is not, though allowable, a very free use made of any kind of animal food further than milk, butter and eggs, by the society at large, and many of them find it more coudusive to health to restrict themselves within narrower limits.

DYSPEPSIA CURED.—For my own part, an abstinence from all animal diet, except milk, for the last six or seven years, has cured me of dyspepsia or indigestion, or perhaps more correctly, this course of living in connection with the water treatment has cured me. We have never had a case of cholera or anything like it, in this place.

PASTURE FOR COWS.—Nature has so ordered it, that a cow should have plenty of grass or other nutritious substances, so that with a few hours labor she can supply herself for the day, and have time to lie and rest and ruminate. These conditions are known to be essential to her health and well being. Where a cow is compelled, for a scanty supsistence to labor hard in the hot sun all day she becomes exhausted, and without relief dies, where other circumstances are favorable.

WINTER FEEDING STOCK.—Seven months in the year, on an average, we do not feed our milch cows at all, grass and red clover in pastures being sufficient, but the remaining five months we feed them. The principal food in winter, besides hay, is what we call chop. Oats in the sheaf unthreshed, are cut and mixed, after wetting with meal, and the oats should be cut in the field before they are fully ripe and allowed to cure in the sun and be taken up without being wet. Pumpkins, turnips and boiled potatoes, (Irish) make good food for milch cows in winter. M. BURNETT.

During the last twenty-five years, two millions and a half are said (by the London News) to have left the British kingdom, a million of whom have probably become citizens of the United States. This is the best and cheapest method to redeem the enslaved millions of Europe.—*Buchanan's Journal of Man.*

THE FAMILY CIRCLE.

This department will be conducted by
Mrs. MARY ABBOTT.

New Year.

We have arrived at the commencement of a new year, which we hope will find all our readers happy, and with bright prospects before them.

The New Year ought to be a solemn time to all as well as a happy time; a solemn time to those who are heads of families. When we reflect—what have we done the past year for the ultimate good of those who are committed to our care? Have we done all we could to educate and train our children for usefulness here and happiness hereafter? Have we by precept and example led them in the ways of virtue and piety; and taught them that they have a *work* to do? Not to shine and glitter away the few days allotted them here on earth, but that they must be active in every good word and work. Have we taught them that it is *not* "the whole of life to live." Parents, our chief mission on earth is to raise up the foundations of many generations, and the manner in which we train those who are to be the founders of future generations, is what we must account for. If we have not done our duty to those around us—if we have not instructed our children as immortal beings, then it becomes us to be penitent and solemn on this New Years day; and may our reflections on the past lead us to new exertions to educate our children for usefulness and happiness. It is a great work submitted to us to do, and great will be our reward if we do it rightly; and He that gives the work to do will also give strength, if we ask it, and then, when all our years are past, and our work done, and well done, we shall be greeted with the pleasing sentence, "well done, good and faithful servant; enter thou into the joy of thy Lord."—And may the hope that this may be our lot make the present a happy New Year to all of us.

As for the future prospects of our Family Circle, we shall endeavor to make it useful and instructive, and we hope that every thing that appears in it, will have a tendency to cultivate the intellect and purify the heart.

Mrs. Whittlesey's Magazine.—It is full of interest and instruction both to mothers and children from the oldest to the youngest, and we cheerfully recommend it to every mother, as a great help in her exertions to train up her children in the way they should go.

The Family Visitor.—We think this the very best paper of the kind we know, and we wish every family in the land could be supplied with a copy of it.

Youth's Companion.—A family paper, devoted to Piety, Morality, Botherly Love. No sectarianism, no controversy. Published weekly by Nathaniel Willis, at No. 22 School street, Boston. Price $1 a year in advance.

Merry's Museum.—Edited by S. G. Goodrich, Esq. Published by S. T. Allen & Co., 142 Nassau st., N. Y. Price $1 a year in advance.

The Student.—A family miscellany and monthly school-reader. Devoted to the physical, moral, and intellectual improvement of youth. N. A. Calkins, Editor. Published monthly, by Fowlers & Wells, Clinton Hall, 131 Nassau st., N. Y. Price $1 a year in advance.

These publications are all of them of great benefit to children and youth, and are great assistants to teachers. They are full of instruction to the young. We would recommend them to parents and teachers.

We give in this paper a communication from a lady on butter making which we think good. We have always thought that if the butter milk was well worked out of butter, it would need nothing but salt to preserve it pure if kept in a cool place. We shall be very glad to see and taste a specimen of butter that was made pure and kept so for six months with no other preserving agent than salt. We should think it the best way of preserving it. It would be pure butter and nothing else; an article we seldom see here. We have never tasted butter three months old, that was perfectly pure, unless put down with salt petre and sugar. We would be glad to buy butter, *if sweet*, that has been made and preserved in so simple a manner as described by our correspondent. We are glad to see that our lady readers are wa-

king up on the subject of butter-making and hope often to hear from them on this subject, and every other that can interest the family.

For the Valley Farmer.

Mrs. Abbott:—I have been a regular reader of your valuable paper, for the last three years and have read with pleasure, among other valuable information, many communications, editorials, &c; on the subject of making and keeping butter. Now I propose to give you my mode of making and keeping that article which is simply this: When the cream is taken off the milk, I put it in a stone or earthern crock, there to stand in warm weather from twenty-four to thirty-six hours, in the winter season from two to three days, during that time it must be well stirred up two or three times a day, and kept where it will not freeze in winter and where it will be *cool* in the summer season (not regarding any particular degree of the thermometer,) and when it is ready for churning it is poured in a wooden churn, and with very few minutes labor, I have my butter ready to take up, which I do with the dasher of the churn, and put in some vessel for working and *washing* out the milk, which I do with a paddle, using the coldest water I can get, and changing the water two or three times. After working the milk and water out as well as I can with the paddle, I salt it *well* and pack it in a crock, where I let it stand several days, then rework it, and if it is in the spring of the year, and I wish to keep it through the summer, I let it stand open a few days longer, then work it over again, then pack it close and firmly away in a jar or firkin, using a thick paddle to press it down closely, after sprinkling some fine salt on the bottom of the jar, I pack very close and firm a layer of butter three or four inches thick, then more salt, then butter again and so on until the jar is full, then cover with a clean white rag, and tie a paper over the top of the jar. Butter made and kept in that manner we have on our table every day the whole year round, as sound as a nut, and I am in great hopes of soon having an opportunity of sending you a pint of butter made last spring, and preserved in that manner, through the whole summer and fall, that you may testify to its being equal, if not superior, to butter preserved in saltpetre and double refined loaf sugar.

If some of your female readers will but practice these simple directions thus feebly expressed, and fail to have *good* butter, I will then forfeit my reputation as a butter maker.

S. E. J.

Angry Words.

Angry words are lightly spoken,
In a rash and thoughtless hour—
Brightest links of life are broken
By their deep insidious power.
Hearts inspired by warmest feeling,
Ne'er before by anger stirred,
Oft are rent past human healing,
By a single angry word.

Poison drops of care and sorrow,
Bitter potion drops are they,
Weaving for the coming morrow,
Saddest memories of to-day.
Angry words! oh, let them never
From the tongue unbridled slip!
May the heart's best impulse ever
Check them ere they soil the lip!

Love is much too pure and holy,
Friendship is too sacred far,
For a moment's reckless folly
Thus to desolate and mar.
Angry words are lightly spoken—
Bitterest thoughts are rashly stirred,
Brightest links of life are broken
By a single angry word.

From Mrs. Whittlesey's Magazine.

One Unkind Word.

BY MARY IRVING.

"It is your holiday afternoon, is it not, Celia?" asked Mrs. May of her little daughter, one Saturday noon.

"Yes, mamma."

"Will you take care of your little brother, then, for an hour or two, while I am away?"

"Oh, dear!" sighed Celia half petulantly.

"You surely would not keep mamma from the ride she has so long needed?" replied the sickly-looking mother, in a tone both tender and chiding.

"No!" answered Celia, turning her eyes downward in a little shame; "but—where's Judy?"

"Judy is ill, and has gone home to pass the Sabbath. Little Willie loves you so well, that he will not trouble you very much. Chirrup—my baby boy!" she exclaimed to the little curly-pate in question, who stretched up his tiny hands from the carpet, and echoed her tone like a mocking-bird.

Celia watched her mamma, while she was arranging her bonnet and shawl, with a reck-

er doleful face. It was not that she did not love her brother—the sweet "Willy boy," into whose crib she climbed for a frolic every morning. Nor was Celia an ill-tempered or a disobliging girl, generally. She would stay within doors the sunniest afternoon, to bathe mamma's head when it had one of its tiresome aches; and would trip about the house like a clever little matron, hushing all the boisterous younger voices, and "putting things to rights," in a wonderful way. But Celia had one ruling passion, in which I am sure *some* little girls can sympathize. It was the love of story-books. Mrs. May was an indulgent mother, and as long as Celia kept at the head of her class, in school, she did not restrict her reading; only taking a peep into every book which her daughter, like a dutiful child, brought to her before commencing.

Celia had borrowed Robinson Crusoe, in red covers, of her seat-mate, that day, and had promised herself an afternoon's feast, sitting in the garden arbor, with the bees buzzing around her. It was quite a trial, therefore, to find herself under the necessity of minding "little Willy," the chatterer.

"Oh, baby! I wish you wouldn't pull my frock so!" she exclaimed, impatiently, as the little one, feeling lonely with his blocks, crept along, and tried to raise himself by her dress.

He presently peeped around to catch a glimpse of her face, and crowed "Goo-roo!" as he hid his head in her lap.

"Go, play with its blocks—there's a deary!" said Celia trying in vain to fix her attention on the absorbing story of the shipwreck. "Oh there—there! no—you *mustn't* catch the book! Go away! naughty—naughty!"

Baby Willy was not accustomed to such looks and tones, especially not to the pat which she dealt to his aspiring little hand. His lips rolled over—his face wrikled out of all its beauty—and throwing himself flat upon his back, he began to flounder like "a fish out of water," screaming with all his lungs!

The book must be shut now; and Celia tried to take up and pacify the offended little "lord of creation." But he kicked, struggled, and cried, as long as the red covers were in sight, and even long after Celia tucked them beneath the sofa cushion.

"Little hornet!" she soliloquized in her vexation. "Well he may cry out his mad fit, if he will."

Willie's tempest of temper soon subsided into a grieving cry; and he picked himself up, murmering, "Ma-ma!"

"You can't have mamma now, sir, she's gone!" called Celia from the window, against which she was idly leaning.

Baby crept across the room to the door, against which he drummed to the dolorous tune of "Ma-ma! take"

It was in vain that Celia now fairly set herself about pacifying him. He would not give up his search, and crept, crying, around the room until her ears and heart both ached. Just as she burst into tears of despair, the door opened and her cousin Lucy came in.

"What—crying, Celia, and baby too! quite a concert! Willie, pet, look here!" she cried, tossing an orange into the air. Willie's brimful eyes glanced up in a sort of hope, and his disconsolate mouth held itself open, breaking off in the midst of a prolonged wail.

"Take!" he implored, reaching up his blue quivering hands.

Lucy did "take" and soothed, stroked, and sang to the little trembler, till he dropped his head on her shoulder, and sank into forgetfulness of all his miseries.

Cousin Lucy, though she was many years older than Celia, was very much her friend and confidante; for her sweet sympathizing face won the hearts of all the children who knew her. Now, while she sat rocking the babe in her arms, she coaxed her little cousin into a full history of the afternoon's tribulations. A tear came in her eye as Celia ended. It fell on Willie's plump forehead and she stooped to kiss it off. Gently then she laid him into his crib, without disturbing one of his baby dreams.

"Now, will you bring your patch-work basket?" she whispered, "I have a little parcel of calicoes for your crib-quilt, and I will cut out the stars while you watch Willie."

"Precious Willie!" murmured Lucy. "He is asleep soundly now. Shall I tell you a story while we work?"

"Oh do, cousin! I delight in your stories, above all, 'book stories'!"

"When I was nine years old, Celia, I was a lonely child in a large house. I used to wander from to room, tired of amusing myself, or beg my mother to let me run to the next block to play with my school-mate Fanny, and her two year old brother. 'I wish God would give me a little brother!' I said one evening after returning, as I stood by my beadside to undress. I knelt down in the starlight, and prayed for such a blessing as my friend Fanny possessed. God gave me a little brother at last—a feeble, but precious baby-boy, paler than your rose-bud of a Willie, with soft blue eyes, and a forehead like a pure pearl. I cannot tell you how proud and pleased I was, how I clapped my hands, and laughed, and loved that darling brother! I could scarcely learn my lessons for a whole week, for thinking of him; and as soon as my courtsey was made at the school-room door, I used to bound home to his cradle like a rocket. But there came a time—the only time, Celia, when I felt that blessing a burden."

Celia looked up with a blush or conciousness and saw that her cousin's eyelids were quietly filling with tears. But she went on calmly.

"Louis, that was the name I gave him, for I wished to call him by my own pet name, 'Louly'—Louis was two months old, a wise-looking child, that could hardly hold his head up, when my trial came. A carriage-load of friends from the country came unexpectedly, to pass the evening when our cook was abroad. Nurse must fly into the kitchen, and call all her cooking wits into play; mamma, of course, must entertain her guests in the parlor; so I was called from my uncle's knee, to entertain the baby in the nursery. I did not complain at this, though I loved bustle and chatter; and had anticipated great pleasure in sitting at mamma's feet through the evening puzzling my brains over a thousand things that I could not comprehend. Baby slept quietly till the sun set; then he awoke, and missed the careful hands that were wont to take him up. He fretted and cried, till my powers of singing, rocking, and trotting were exhausted. I dropped him into the cradle, and sought the nurse in the kitchen. I found her running about with a very red face, and a 'smotch' (as she called it) on her white apron."

"Bless ye, Miss! I'm flustered to pieces in the tea-things! Set yer wits to work—ye'll ha' none o' mine *this* while!"

"My wits were as tired as my feet and arms; and so, going softly to the parlor door, I knocked for mamma. Mamma could not leave her tea-table—what was to be done? I took up the little one, all flushed and wreathing with hunger and pain, and half crying myself, commenced carrying him about and soothing him. 'Lou—my little Lou!' I murmured; but the baby's voice grew louder at this attempt, and his arms flying around like a windmill, struck me in the face. I was tired and worried. 'I don't believe you are sick,' I exclaimed at last. 'Bad baby! be done screaming!' I shook him—yes, Celia, I was cruel enough to shake him soundly in my arms—my suffering little brother! I never shall forget the frightened look of that little babe—never! His pale eyes opened wide upon me—his hands flew up convulsively; he was still for a moment, then, with a quiver, his lips rolled over, his eyes closed, and large tears rolled down his white cheeks, while his wail of grief was enough to have melted any heart. That look called me to my senses, I burst into crying myself, and clasped the child to my breast, exclaiming what have I done, 'Oh, what have I done! My brother, my Louly—if God should take you away from me!'"

"Oh cousin!" cried Celia, laying her sobbing head in her lap, "forgive me!"

Forgive *you*, Celia? It would be hard if those who are themselves forgiven, could not forgive. But I must tell you the sequel of my story, dear cousin, though it openens a grave in my heart."

"Did he—*did* he die then, Lucy?"

"Not *then*, love, but listen. Two years that beautiful brother blossomed in my path of life. I never spoke an unkind word to him again; for if it came to my lips, the memory of that baby look chased it back, and called a tender tone in its stead. Then our pale boy grew paler still, just as he had learned to follow me around with tottering steps, to lisp 'Lulie' to me as I to him—to fill my heart with dreams of a sweet little companion and playmate, he faded away with the first flowers of summer. One still Sabbath evening—I shall remember it forever—we stood by his low bed side to watch his breathing. We could do no more; the physician had sadly silently shaken his head, and walked away. Father's face seemed frozen into lines of agony. Mother had gone away; like Hagar, she could not 'look upon the face of her child' when it was dying. I bent over the bedside, brushing the flies from his forehead with a feather brush, and watching in awe the mystery of the spirit's passing away. A spasm came over the child—then he lay motionless. 'Louis know papa?' spoke our poor father softly; but no look gave him any answer. I could not bear it any longer. 'Louly!' I cried bending, low, 'it's *I!* look up, Louly dear!" The dying boy turned his glistening eyes to mine, and parted his lips faintly; but he was in the arms of the death-angel, and he could not speak to us. That look—the last his blue eyes ever gave on earth, told me I was forgiven. But, Celia, I could not forgive myself, then. That one unkindness rose in my memory like a black cloud, to blot from my sight the beautiful Heaven that was opening for my dear brother! 'God has taken him!' spoke my father, as his breath hushed, and we listened in the stillness of death. And he knelt down in prayer. I knelt to weep—to weep with a bitterness Heaven keep *you* from knowing, my dear cousin!"

"Oh, Willie!" cried Celia, stretching her hands involuntarily to the crib. Willie's black eyes were wide open, dreamily watching the glass danglers above him; and they were full of wonder, when his sister caught him up to smother him with her tears and kisses, crying, "No, Willie! you *must* not die! it would break my heart—oh dear me! Cousin Lucy, I shall remember this afternoon! I shall remember this afternoon! I *never will* speak an angry word to Willie again—*never!*"

"Heaven help you to keep this resolution; Celia! and then the angels will not have taken Louis in vain! But there are the carriage-wheels—run! hold sweet Willy to watch at the window for mamma!"

St. Louis Retail Market.

Intelligencer Office, }
Saturday, Dec. 27. }

Hay—Per 100 lbs. 60 cents.
Corn—Per bushel 35c.
Oats—24c per bush.
Dressed Pork—$6 per 100 lbs.
Beef—Per quarter, $3 25 to $37 5.
Butter—Prime and sweet 25c, second quality 15 to 18c.
Eggs—Per dozen 25 to 30c and scarce.
Chickens—$1 50 to $2.
Turkeys—75 to $1 25.
Geese—40 to 50c.
Green Hides—3 1-2c.
Dry Hides—8 to 9c.

Good Green Apples are scarce, and are worth $1 75 per bushel.

Game scarce and commands good prices.

LIVE STOCK MARKET.

Butchers are paying for prime beef *Cattle* $4 50, and at this rate they meet with ready sale; ordinary are worth $3 50.

We quote fat *Sheep* at $2, and fair at $1 75; ordinary $1 25 to $1 50.

For fat *Hogs*, for city slaughter, the price is $4 75 to $4 75.

Veal Calves at this season are scarce, and the demand limited. We quote good fat calves at $6 50 to $8, and ordinary at $5 50 to $5 50.

Lambs are worth $1 30.

Prime Cows, with Calves, $25, and ordinary $18 to $20.

The demand for Horses is very light. We quote them, nominal; draft horses, $65 to $75.

No Mules on the market, and we hear of no enquiries for them.

HOGS.—The business in this line for the past week closes with sales of between 3500 and 4000 head, at prices ranging from $4 75 to $4 85. For the past two days, however, very little has been done, a majority of the packers holding off for lower prices. Yesterday between 1000 and 1200 head sold in lots on the opposite side of the river at $4 80 and $4 85. One lot of about 600 head commanding the outside figure, and the highest sale believed to have been made for packing purposes this season. To-day several lots were offering but no sale of any size was consumated. For two lots comprising in all between 900 and 1000 head, $4 50 and $4 75 was offered, dividing on 200lbs., and this was reported to be the very best offer presented up to the close of the market. The tendency is decidedly downward, and the opinion prevails to a very great extent that prices have reached their highest point this season. In confirmation of this, several of the most prominent buyers were out of the market to-day, unless at greatly reduced prices, day $4 50 and $4 60. The offers of $4 50 and $4 75, stated above, was from a house to fill a contract for cut meats, or otherwise these figures would not have been obtained in all probability. We have every assurance in stating, that it was the best that could be done to-day. The market may be noticed as quite unsettled for the present, and quotations nominal at $4 50 and $4 75.

The total number cut in this city to date, is between 30,000 and 32,000 head, against 48,000 to 50,000 at the same time last season.

At Cincinnatti, on the 25th inst., 250,000 had been cut. At Louisville and around the Falls, on the same date 165,000. The total number received at Madison, Ind., on the 20th, was over 50,000 head.

HOGS.—We hear of one or two small sales of choice hogs for packing at $4 00 a $4 65 net. The number slaughtered this season up to the present time, is but about 153,000, and it is expected that the final result will show a falling off, as compared with last season.

The severe cold weather that prevailed last week, has been a loss of about 12,000 hogs to our packers, who were to receive that number by the river from Madison, In. We learn, however, that Clifton, Atkinson, & Co., had a drove of 1000 head started from there Saturday by land, to be driven to Jeffersonville.—[Lou. Cour., 22d inst.

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